

Criteria for Impact-Based Actions in Lower-Emissions Natural Gas

Prepared by Relae, in partnership with
Green Strategies, Inc.

Contents

Acronyms and Abbreviations	2	Criterion 4.1: Segment Disclosure	35
Key Terms and Definitions	3	Criterion 4.2: Geographic Specificity	37
Executive Summary	4	Criterion 4.3: Registry Integrity	40
Key Takeaways	7	Principle 5: Harms and Co-benefits	41
The Focus of This Report	8	Criterion 5.1: Co-benefit Prioritization	41
Leveraging Existing Oversight	8	Criterion 5.2: Co-pollutant Disclosure	44
Near-Term Implementation	9	Criterion 5.3: No Net Harm	46
Upstream and Midstream Focus	9	Criterion 5.4: Community Engagement	47
Core Sourcing Principles and Criteria	10	Principle 6: Infrastructure Durability	49
Using the Report	12	Criterion 6.1: No Net New Capacity Incentive	49
Areas for Further Work	13	Criterion 6.2: Duration	51
Emissions from Distribution and End Use	13	References Cited	52
Non-methane GHG Impacts	14	Appendix A	57
Transition and Lock-in Risk	14	Acknowledgements	61
Principle 1: Standardization	14		
Criterion 1.1: Quantification Standards	15		
Criterion 1.2: Data Quality	18		
Principle 2: Measurement, Monitoring, Reporting, and Verification	21		
Criterion 2.1: Emissions Measurement Completeness	21		
Criterion 2.2: Reporting Protocols	23		
Criterion 2.3: Third-Party Verification	25		
Criterion 2.4: Data Transparency	26		
Principle 3: Additionality	28		
Criterion 3.1: Regulatory Additionality	29		
Criterion 3.2: Baseline Credibility	30		
Criterion 3.3: Net Emissions Abatement	32		
Criterion 3.4: Financial Additionality	34		
Principle 4: Supply Chain Coverage	35		

Acronyms and Abbreviations

AIM: Advanced and Indirect Mitigation Platform	GHGRP: Greenhouse Gas Reporting Program
AMI: Actions and Market Instruments workstream (Greenhouse Gas Protocol)	GTI: GTI Energy (publisher of the Veritas protocols)
BenMAP: Environmental Benefits Mapping and Analysis Program (United States Environmental Protection Agency)	HAP: hazardous air pollutants
BTEX: benzene, toluene, ethylbenzene, and xylene	LDAR: leak detection and repair
CAP: criteria air pollutants	LNG: liquefied natural gas
CCS: carbon capture and storage	MFWG: Methane Finance Working Group
CI: carbon intensity	MMRV: measurement, monitoring, reporting, and verification
CLEAN: Coalition for LNG Emission Abatement toward Net-zero (Japan)	NOx: nitrogen oxides
CO: carbon monoxide	OGMP: Oil and Gas Methane Partnership (United Nations Environment Programme)
CO ₂ : carbon dioxide	PM: particulate matter
COBRA: CO-Benefits Risk Assessment (United States Environmental Protection Agency)	PM2.5: particulate matter less than 2.5 micrometers in diameter
EAC: environmental attribute certificate	TCAT: Task Force for Corporate Action Transparency
EJ: environmental justice	UNEP: United Nations Environment Programme
EPA: Environmental Protection Agency (United States)	US: United States
EU: European Union	VOC: volatile organic compounds
GHG: greenhouse gas	
GHGP: Greenhouse Gas Protocol	

Key Terms and Definitions

Actions: An action represents the thing that a buyer of natural gas does that is related to an impact-based emissions outcome in the natural gas supply chain. Actions can include procurement of lower-emissions gas instruments (i.e., certified gas) or underwriting the costs of interventions that reduce emissions.

Additionality: A test of whether an emissions impact (e.g., reduction or avoidance relative to a baseline) would not have occurred in the absence of the intervention, market action, or related action. This ensures that certified performance reflects genuine, incremental emissions reductions relative to a credible baseline.

Attributional accounting: An accounting method that characterizes the emissions associated with activities inside a defined inventory or product boundary. It typically uses an emissions ‘rate’ per unit of something (e.g., a carbon intensity or differentiated emissions factor). It does not quantify the actual emissions change associated with an intervention.

Co-benefit: An environmental or community benefit delivered by an emissions-reduction activity beyond the GHG reduction itself.

Co-pollutant: A non-GHG air pollutant emitted alongside methane and other GHGs from gas operations that affects local air quality and public health. Other co-pollutants associated with natural gas production may be released to land and/or water, but the primary focus of these guidelines is on those released to air since there is an opportunity to be mitigated along with GHGs.

Differentiated natural gas: Natural gas whose upstream and midstream emissions characteristics have been quantified, verified, and distinguished from conventional supply.

Emissions baseline: The reference emissions level against which an intervention’s reduction is measured. These are the emissions that would have occurred absent the intervention.

Impact-based accounting: An accounting method that quantifies how emissions change as a result of a specific action or intervention by comparing a scenario with the intervention against a counterfactual scenario without it. It is

used to report emissions reductions or avoidance relative to an established baseline case. This is also referred to as consequential accounting.

Intervention: A physical and technological action taken to reduce or avoid emissions. Interventions are the basis for the emissions change represented by impact-based accounting.

Lower-emissions natural gas: A subset of differentiated gas. Lower-emissions natural gas has quantified and verified a reduced methane and/or total GHG intensity relative to conventional supply.

Executive Summary

The market for lower-emissions natural gas is growing. As corporate buyers face increasing scrutiny over the emissions footprint of their energy procurement, a range of instruments and actions have emerged that attest to the methane intensity and total greenhouse gas (GHG) intensity of delivered natural gas.³ Certification programs such as MiQ and Equitable Origin certify gas across a range of production pathways in the United States (US) and Canada.^{4, 5} At the same time, regulatory pressure is mounting. The European Union (EU) Methane Regulation has reporting requirements starting in 2027 and intends to introduce methane intensity standards by 2030.⁶ Japan has established and made progress in developing its Coalition for LNG Emission Abatement toward Net-zero (CLEAN) initiative, which could evolve from a voluntary to regulatory program in the future.⁷ Opportunities for buyers to claim and report lower emissions in their natural gas supply chain are also growing with the emergence of voluntary standards. These developments are driving producer interest in lower-emissions natural gas infrastructure, measurement and certification, and supporting the emergence of a buyer signal beyond historical voluntary buyer demand.

The underlying emissions problem is well documented and substantial. The oil and gas sector is the second largest source of US methane emissions.⁸ Within the natural gas system, emissions occur across every segment of the supply chain: production, gathering and boosting, processing, transmission, storage, and distribution. Methane intensity and total GHG intensity varies dramatically by basin. Published, measurement-based inventories report

³ Natural gas and gas are used interchangeably throughout this document.

⁴ MiQ. 2026. MiQ. [accessed 2026 Jun 16]. <https://miq.org/>

⁵ Equitable Origin. 2026. Certification. [accessed 2026 Jun 16]. <https://www.equitableorigin.org/certification>

⁶ Oxford Institute for Energy Studies. 2026. EU Methane Emissions Regulation: Implications for Natural Gas Certification and Supply Chains (NG 205). [accessed 2026 Jun 16]. <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2026/06/NG-205-EU-Methane-Emissions.pdf>

⁷ MiQ. 2025. MiQ enters partnership with Japan Ministry. [accessed 2026 Jun 16]. <https://miq.org/miq-enters-partnership-with-japan-ministry/>

⁸ United States Environmental Protection Agency. 2026. Methane Emissions. [accessed 2026 Jun 16]. <https://www.epa.gov/ghgemissions/methane-emissions>

average methane loss rates ranging from below 1% in the Haynesville and Appalachia basins to 3–4% in the Barnett basin for delivered gas. The highest rates (above 4%) occur in oil-associated basins such as the Permian, Bakken, and Uinta.⁹ There is also considerable variability within basins across operators and individual assets, based on different practices and equipment choices. Conventional estimation approaches rely on engineering calculations and average emission factors. They systematically undercount actual emissions, and episodic events (e.g., equipment malfunctions, unplanned venting, abnormal process conditions) contribute disproportionately to total emissions.¹⁰

Additionally, measurement methodologies remain inconsistent across the industry. Certified and uncertified natural gas flow through the same pipeline infrastructure. The registry landscape is fragmented, with multiple platforms hosting certificates under different standards without full interoperability. One initiative looking to address this gap is the United Nations Environment Programme (UNEP) Oil and Gas Methane Partnership 2.0 (OGMP).¹¹ OGMP 2.0 is a voluntary corporate measurement and reporting initiative that serves as a collaborative platform involving energy companies, governments, and international non-governmental organizations. Its primary objective is to enhance the transparency and precision of methane emissions data.

Despite these challenges, opportunities exist for buyers to use actions to drive genuine emissions reductions in the natural gas supply chain. The economics of methane abatement are, on the whole, favorable. Most analyses find that upstream and midstream methane emissions represent a large portion of needed abatement under net-zero scenarios, and that they can be abated in a relatively cost-effective manner. Many methane abatement approaches are both technologically feasible and economically justifiable.¹² What has been missing is a framework for buyers to

⁹ Omara M, Himmelberger A, MacKay K, Williams JP, Benmergui J, Sargent M, Wofsy SC, Gautam R. 2024. Constructing a measurement-based spatially explicit inventory of US oil and gas methane emissions (2021). *Earth Syst Sci Data*. 2024;16(9):3973-3991. <https://doi.org/10.5194/essd-16-3973-2024>

¹⁰ Environmental Defense Fund. n.d. Measuring methane: a groundbreaking effort to quantify methane emissions from the oil and gas industry. [accessed 2026 Jun 17]. <https://www.edf.org/sites/default/files/EDF-Methane-Science-Brochure.pdf>

¹¹ United Nations Environment Programme. 2020. Oil and Gas Methane Partnership 2.0. Nairobi: UNEP; [accessed 2026 Jun 17]. <https://www.ogmpartnership.org/>

¹² One Future. 2026. 2026 One Future MACC Study. [accessed 2026 Jun 16]. <https://onefuture.us/press/2026-one-future-macc-study/>

evaluate the quality of available impact-based actions and direct their purchasing toward outcomes that represent real environmental benefit. This guide is designed to fill that gap.

This document proposes core sourcing principles for impact-based actions in lower-emissions natural gas, with supporting criteria. Each criterion includes tiered implementation options that provide flexibility across diverse supply chain contexts and measurement capabilities, while maintaining a minimum standard of environmental integrity. The criteria are written to support contract language for impact-based actions related to lower-emissions gas interventions, and to provide buyers with the grounding to evaluate actions on their merits. This paper is informed by current and emerging guidance efforts and is intended to provide high-ambition companies a set of best practices to create, measure, and report the real-world emissions impacts of their actions and interventions. This guidance is not a certification scheme and does not prescribe a single pathway.

Key Takeaways

- Buyers evaluating impact-based actions in lower-emissions natural gas need a test of quality, not only a count of tonnes. This report sets out six sourcing principles: standardization; measurement, monitoring, reporting, and verification; additionality; supply chain coverage; harms and co-benefits; and infrastructure durability, with criteria written to support contract language.
- Each criterion includes multiple implementation options, tiered as “Good,” “Better,” and “Best,” holding a minimum standard of environmental integrity while providing flexibility across different operating contexts and measurement capabilities.
- The criteria apply to impact-based actions, which quantify how emissions change as a result of a specific intervention, rather than to attributional claims about the emissions rate of delivered gas—though much of the content carries over to the attributional case.
- Scope is upstream and midstream and the framing is near-term: the criteria are grounded in what is measurable, verifiable, and implementable today, and they lean on existing regulatory and voluntary oversight rather than establishing a new certification scheme.

- This report is a companion to our *Impact Accounting for the Natural Gas Supply Chain: Guidance for Buyers*,¹³ together the two documents address whether a buyer should take an action and how to account for it.

The Focus of This Report

The market currently consists of two ways to account for buyer actions: actions that are conveyed with verified differentiated emissions rates (i.e., attributional) and actions represented by verified emissions reductions from specific interventions (i.e., impact-based). This document is designed to help buyers assess impact-based actions and interventions for lower-emissions natural gas. Examples of these interventions are provided in [Appendix A](#). While this document is not primarily focused on characterizing the quality of the attributional method, there is content that can also be applied to this approach.

As market actors navigate the complex landscape of lower-emissions natural gas actions and interventions, it is crucial to establish quality guidelines that appropriately reflect the realities of both a global market and the nuances of local implementation. Guidance needs to be grounded in what is measurable, verifiable, and implementable in the near term, while also supporting more ambitious action going forward. The following considerations shaped this report's scope and approach.

This report is a companion to the *Impact Accounting for the Natural Gas Supply Chain: Guidance for Buyers* methodology document, which details how buyers should quantify and report impact-based emissions based on actions that they take. The set of principles and criteria outlined in this report help buyers evaluate the quality of specific actions intended to achieve emissions impacts, and ultimately decide whether to take those actions.

Leveraging Existing Oversight

Several regulatory and voluntary frameworks already exist for methane and GHG emissions measurement and reporting in the oil and gas sector, including the UNEP's OGMP 2.0 framework, the EU Methane Regulation, US Environmental Protection Agency (EPA) reporting requirements, as well as sector-specific protocols like GTI Energy's

¹³ Relae and Green Strategies. Forthcoming 2026. *Impact Accounting for the Natural Gas Supply Chain: Guidance for Buyers*.

Veritas.¹⁴ Similarly, there are existing and emerging voluntary frameworks that cover quantifying and reporting on impact-based interventions and/or market based actions. These include the Advanced and Indirect Mitigation (AIM) Platform,¹⁵ the Task Force for Corporate Action Transparency (TCAT),¹⁶ and the forthcoming GHG Protocol Actions and Market Instruments (AMI) Standard.¹⁷ Rather than creating a parallel system, our principles and criteria build on and synthesize that body of work for discerning buyers, with specific guidance pertinent to the upstream natural gas supply chain. The criteria presented here are compatible with existing measurement and reporting infrastructure. Where existing frameworks diverge or leave gaps relevant to buyer contracting, our guidance presents approaches that aim for a more comprehensive characterization of available options. Buyers, suppliers, and other stakeholders should use this document in tandem with the expectations and requirements of other frameworks, as relevant to their procurement and strategic approaches.

Near-Term Implementation

The criteria in this document can be implemented in contracts in the near term, using frameworks and measurement approaches that are largely available and operational today. Requirements that are technically feasible but not yet widely deployed may be addressed in future updates.

Upstream and Midstream Focus

This guidance covers emissions from upstream production and midstream transport and processing, the supply chain segments where the majority of GHG emissions occur and where measurement infrastructure is most developed. Downstream distribution and end use are outside the scope of this version. Emissions from combustion of natural gas are also not addressed here, as those are covered by existing scope 1, scope 2, and scope 3 accounting frameworks.

¹⁴ Veritas. 2026. Veritas Home. [accessed 2026 Jun 18]. <https://veritas.gti.energy>

¹⁵ The AIM Platform. 2026. AIM Platform Standard and Guidance. [accessed 2026 Aug 31]. <https://aimplatform.org/standard-development/aim-platform-standard-and-guidance/>

¹⁶ TCAT. 2026. Guidance Documents. [accessed 2026 Aug 31]. <https://www.tcataction.org/guidance-documents>

¹⁷ GHG Protocol. 2026. Actions and Market Instruments Standard. [accessed 2026 Aug 31]. <https://ghgprotocol.org/actions-and-market-instruments-standard>

Core Sourcing Principles and Criteria

These principles and criteria are written to help buyers assess impact-based actions and interventions for sourcing lower-emissions natural gas. For each principle, the underlying criteria describe specific and verifiable outcomes. Each criterion includes multiple implementation options, tiered as “Good,” “Better,” and “Best,” holding a minimum standard of environmental integrity while providing flexibility across different operating contexts and measurement capabilities. The list below provides an overview of the six principles and supporting criteria. The sections that follow give further detail, and outline options under each criterion.

- **Principle 1. Standardization:** Actions are backed by standardized emissions measurement and transparent reporting under accepted frameworks, with data quality sufficient to support reliable comparisons across operators and supply chain segments before and after interventions.
 - **Criterion 1.1. Quantification Standards:** Emissions quantification follows a recognized, standardized methodology that clearly describes how individual source-level (i.e., bottom-up) and facility-level (i.e., top-down) measurement approaches are used both to quantify the emissions reduction attributable to a specific intervention and to establish the baseline against which that reduction is measured.
 - **Criterion 1.2. Data Quality:** Emissions data used to support action claims must meet defined minimum quality thresholds, with transparent disclosure of uncertainty and documented protocols for handling data gaps, incomplete reporting, and failure to meet quality requirements.
- **Principle 2. Measurement, monitoring, reporting, and verification (MMRV):** Actions reflecting emissions rates are subject to robust MMRV practices that are adequate, precise, and independently verified using accepted methodologies. Data relating to emissions reductions/avoidance should similarly be subject to measurement and verification.
 - **Criterion 2.1. Emissions Measurement Completeness:** Actions incorporate measurement approaches that account for the full range of emissions scenarios, including ongoing, episodic, and abnormal operation events.
 - **Criterion 2.2. Reporting Protocols:** Actions define clear reporting cadence, data requirements, and processes for handling non-compliance.

- **Criterion 2.3. Third-Party Verification:** Emissions claims used to support market actions are independently verified by a qualified third party with no financial interest in the certified assets.
 - **Criterion 2.4. Data Transparency:** Actions are supported by emissions data disclosure sufficient to enable buyers to evaluate the quality and context of certified performance.
- **Principle 3. Additionality:** Impact-based interventions must represent incremental, additional emissions reductions demonstrated against credible baselines. This ensures that the certified performance reflects genuine operational change rather than selection of assets that are already low emitting.
 - **Criterion 3.1. Regulatory Additionality:** Interventions go above and beyond applicable regulatory requirements.
 - **Criterion 3.2. Baseline Credibility:** Interventions must establish a credible emissions baseline against which the impact of the intervention can be measured. Baselines must reflect prior conditions as accurately as possible.
 - **Criterion 3.3. Net Emissions Abatement:** Intervention impacts represent the measured difference between emissions after the intervention and emissions in the established baseline.
 - **Criterion 3.4. Financial Additionality:** Interventions are credibly tied to transactions or demand signals in the market for differentiated lower-emissions gas.
- **Principle 4. Supply chain coverage:** Actions transparently describe supply chain coverage with appropriate geographic specificity, enabling buyers to understand which segment or segments of the supply chain are covered and how physical asset location relates to claims associated with an intervention outcome.
 - **Criterion 4.1. Segment Disclosure:** Actions must clearly disclose which segment or segments of the natural gas supply chain are covered by the certified emissions claim.
 - **Criterion 4.2. Geographic Specificity:** Actions must provide sufficient geographic specificity to enable buyers to assess the relevance of certified performance to their actual gas consumption.
 - **Criterion 4.3. Registry Integrity:** Actions must be registered in a tracking system that prevents double counting and ensures chain-of-custody integrity.
- **Principle 5. Harms and co-benefits:** Support of actions through procurement should not cause harm and should deliver environmental and community co-benefits beyond GHG reduction, including reductions in co-pollutants and improved air quality for neighboring communities.

- **Criterion 5.1. Co-benefit Prioritization:** Actions should prioritize projects operating in or near areas where GHG abatement will deliver the greatest air quality and public health co-benefits.
- **Criterion 5.2. Co-pollutant Disclosure:** Operators disclose the types of co-pollutant reductions associated with certified GHG abatement activities and provide sufficient compositional and operational information to allow buyers to assess the nature and relative magnitude of co-benefits, without requiring full quantification.
- **Criterion 5.3. No Net Harm:** Actions do not increase net air pollutant burdens on communities in proximity to covered operations because of certified abatement activities.
- **Criterion 5.4. Community Engagement:** Operators should demonstrate meaningful engagement with communities affected by covered operations, with particular attention to Indigenous, frontline, and recognized environmental justice communities.
- **Principle 6. Infrastructure durability:** Actions should not incentivize additional fossil fuel production or distort energy markets.
 - **Criterion 6.1. No Net New Capacity Incentive:** Actions must not provide revenue incentives that support net new fossil fuel production, processing, or transport capacity, except for equipment whose sole function is reducing emissions from existing operations.
 - **Criterion 6.2. Duration:** Procurement arrangements for actions should be structured so that their duration does not disadvantage any party’s ability to seek fundamentally lower- or zero-carbon energy alternatives.

Using the Report

Each principle comprises several criteria, which all have a gradient of options for achieving them. The “Best” option under each criterion is the more robust option and offers a higher level of assurance than the others. Bespoke arrangements may result in conditions that are even more rigorous than the preferred option. For preceding options (i.e., “Better” and “Good”) buyers should recognize that following these lower-ambition options comes with a greater potential risk of adverse outcomes. Buyers may choose to incorporate one, several, or none of the options for a given criterion into their actions. These criteria do not constitute a certification scheme and do not prescribe a single

pathway. Rather, they are intended to give buyers the grounding to evaluate actions on their merits and the practical language to codify their requirements. [Appendix A](#) illustrates examples of the types of interventions these criteria are designed to address. Buyers may find it a useful reference point when applying the criteria to a specific action.

This guide is voluntary. Its purpose is to bring rigor and structure to the market for a large and diverse range of differentiated gas buyers. The tiered structure is not a ranking from “not credible” to “credible;” it is a range from “Good” to “Best,” and participation at any level signals seriousness about the quality of the actions a buyer may procure. The goal is to support buyers in making and documenting procurement decisions that align with their budget and ambition for emissions reduction.

Note that each criterion includes multiple implementation options providing flexibility to accommodate the current state of the market while setting a trajectory toward best practice. The number of options varies by criterion. Most offer three (i.e., “Good,” “Better,” and “Best”); some offer two (i.e., “Better” and “Best”). This reflects the range of meaningfully distinct approaches available for each criterion rather than a gap in this guidance.

Areas for Further Work

This report addresses a specific, near-term need. It provides buyers with a rigorous basis for assessing impact-based actions and interventions when sourcing lower-emissions natural gas. Several important topics—emissions from distribution and end use, some non-methane GHG impacts, and transition and lock-in risk—remain outside the current scope of this report. Their exclusion does not reflect a lack of importance, but rather the status of the technologies and priorities associated with them.

Emissions from Distribution and End Use

Upstream and midstream methane emissions and total greenhouse gas (GHG) intensity in a buyer’s supply chain are the focus of these criteria. Emissions from local distribution companies, building appliances, and other end-use infrastructure (e.g., downstream) represent a substantial share of total supply chain methane and are not addressed

here. As measurement capabilities and reporting obligations extend further downstream, this guidance could be amended to incorporate criteria for performance across the distribution segment.

Non-methane GHG Impacts

The current market for differentiated gas is built on the measurement of methane emissions from the upstream value chain. While these criteria primarily build on existing methane measurement and certification schemes, they are extensible to all GHG emissions in the supply chain, such as combustion emissions from compressor drives and carbon dioxide (CO₂) emissions from acid gas removal. While the criteria refer to “methane intensity and emissions” throughout, many of the same principles can be applied to other GHG emissions. However, accurate measurement systems, reporting requirements, and baselines of non-methane GHG emissions are not currently as widely deployed and prescribed as those for methane are. As such, buyers seeking a more complete picture of the climate impact of their natural gas procurement across all GHGs should use this guidance alongside existing frameworks for scope 1, scope 2, and/or scope 3 emissions accounting.

Transition and Lock-in Risk

Procurement of lower-emissions natural gas, if not carefully structured, can serve as justification for continued or expanded reliance on fossil-fuel infrastructure in ways that conflict with long-term decarbonization goals. The complexities of weighing lower-emissions natural gas procurement against other strategies, such as fuel switching or demand reduction, are addressed at a high level in [*Principle 6: Infrastructure durability*](#), but questions remain about the continued role of natural gas use in a credible net-zero pathway.

Principle 1: Standardization

Actions are backed by standardized emissions measurement and transparent reporting under accepted frameworks, with data quality sufficient to support reliable comparisons across operators and supply chain segments before and after interventions.

Compliance with this principle is met through two criteria.

Criterion 1.1: Quantification Standards

Emissions quantification follows a recognized, standardized methodology that clearly describes how individual source-level (i.e., bottom-up) and facility-level (i.e., top-down) measurement approaches are used both to quantify the emissions reduction attributable to a specific intervention and to establish the baseline against which that reduction is measured.

Good

The emissions reduction must be quantified through direct source-level measurement of the specific emissions source or sources affected by the intervention, both before and after the intervention. Baseline inventories for the affected source categories must be measurement-informed rather than solely derived from engineering calculations or generic emission factors. Asset-wide emissions data must be quantified at OGMP 2.0 Level 3 or Level 4, with a documented, time-bound commitment of no longer than three years for operating assets, or five years for non-operating assets, to achieve Level 5 reporting. This asset-wide context is required to support the credibility of the intervention baseline and to provide evidence that the claimed reduction is not offset by GHG emissions increases elsewhere on the asset.

Where the operator holds current certification under a recognized methane certification scheme at MiQ Grade B or above, or the demonstrated equivalent under another recognized scheme, this may serve as evidence of sufficient measurement infrastructure to satisfy the measurement-informed baseline requirement for the affected source categories.¹⁸ Certification of asset-level emissions intensity does not, however, substitute for direct pre- and post-intervention measurement of the specific emission sources addressed by the intervention. Certification findings, including the assigned grade and scope of certified supply chain segments, must be publicly disclosed and made available to buyers.

Better

The intervention-attributable reduction must be quantified using a comprehensive, measurement-based methodology that establishes a pre-intervention baseline through direct measurement of the affected

¹⁸ The MiQ standard. 2024. MiQ Technical Standard: MiQ. [accessed 2026 Jun 17]. <https://miq.org/the-technical-standard/>

emission sources using source-level methods capable of resolving individual equipment or source category contributions, quantifies post-intervention emissions at the same sources using methods consistent with the pre-intervention baseline, and integrates source-level and site-level measurement across the relevant asset or supply chain segment to verify that the claimed reduction represents a net improvement rather than being offset by emissions increases elsewhere. The methodology must be conducted under a documented and publicly available protocol and independently audited, with findings disclosed to buyers. GTI Veritas satisfies this tier when independently audited. Other methodologies satisfy this tier when demonstrably equivalent in measurement rigor and scope to OGMP 2.0 Level 5, as confirmed by an independent auditor.^{19, 20} The distinction between "Better" and "Best" reflects the institutional public reporting structure of the OGMP framework, not a judgment on measurement quality.

Best

Building on the measurement rigor of the "Better" tier, "Best" adds an institutional public accountability layer and requires that claimed reductions are confirmable at the asset level through the operator's OGMP 2.0 reporting framework.²¹ Emissions data for all covered material assets must be quantified to OGMP 2.0 Level 5, or the operator must hold OGMP 2.0 Gold Standard status with evidence that all covered assets have reached Level 5. The asset-wide Level 5 framework serves simultaneously as a high-quality baseline from which intervention reductions are measured and as an independent check that claimed reductions represent genuine net improvements at the asset level.

¹⁹ GTI Energy. 2023. Veritas: open-source protocols to accelerate methane emissions reductions. [accessed 2026 Jun 17].

<https://www.gti.energy/veritas-open-source-protocols-to-accelerate-methane-emissions-reductions/>

²⁰ GTI Energy. 2023. Updated Veritas methane measurement and verification protocols (Version 2). [accessed 2026 Jun 17].

<https://www.gti.energy/updated-veritas-methane-measurement-and-verification-protocols-to-help-reduce-emissions/>

²¹ United Nations Environment Programme. 2023. OGMP 2.0 reporting framework. [accessed 2026 Jun 17].

https://www.ogmpartnership.org/sites/default/files/documents/2025-04/OGMP_2.0_Reporting_Framework.pdf

Explanation

Accurately measuring methane and other GHG emissions from oil and gas operations is technically demanding but essential for credible markets. For actions that reduce methane emissions, quantification standards serve two related but distinct purposes: establishing a credible baseline from which the reduction is measured, and verifying that the claimed reduction represents a genuine net improvement rather than being offset by changes elsewhere on the asset. Both purposes benefit from the measurement rigor captured by the Good/Better/Best tier structure, and the existing framework retains substantial relevance in this context.

Two complementary measurement approaches are used in practice: bottom-up (i.e., source-level) methods that aggregate emissions from individual equipment components, and top-down (i.e., site-level or regional) methods that use aerial, continuous, or satellite monitoring to independently measure aggregate emissions from a facility or area. Source-level measurement is particularly critical because it enables direct, equipment-specific quantification of emissions before and after the intervention. Site-level measurement provides the asset-wide context needed to verify that the intervention reduction is net-additive and that it has not been offset by increases elsewhere on the asset.

The "Best" and "Better" options are equivalent in measurement rigor. The distinction between them is institutional: OGMP 2.0 membership requires a formal public commitment and annual submission of verified data to a UNEP-administered platform, creating accountability through independent public scrutiny of operator performance over time that disclosure to buyers alone does not replicate. The "Better" option accommodates operators using a technically equivalent framework outside the OGMP institutional structure. GTI Veritas specifies rigorous source-and-site measurement methods across supply chain segments and is considered equivalent in measurement quality to OGMP 2.0 Level 5; it satisfies "Better" requirements when independently audited. OGMP 2.0 and GTI Veritas are actively working toward alignment, and Veritas's detailed reconciliation protocol is recognized as a credible basis for meeting OGMP 2.0 measurement requirements.

The "Good" option recognizes that credible intervention-specific measurement is achievable even where the broader asset-wide inventory has not yet reached Level 4 or Level 5. The key floor for actions is direct pre- and post-intervention measurement of the specific sources addressed. This is required regardless of the tier. The

asset-wide data quality framework provides the comparative and baseline context needed to support the credibility of the claimed reduction and to verify there are no material offsetting increases elsewhere on the asset.

As of 2024, 238 assets across OGMP 2.0 member companies have achieved Level 5 reporting, representing approximately 7% of global oil and gas production.²² EU Methane Regulation formally recognizes OGMP 2.0 Level 5 plus independent verification as a compliance pathway for gas importers beginning in 2027, which is expected to accelerate adoption considerably.²³ OGMP 2.0 remains a living framework. Critics have questioned whether the OGMP 2.0 Gold Standard designation consistently distinguishes rigorous measurement practice from superficial compliance, and the framework's consensus-based governance has been slow to keep pace with measurement technology. Those quality distinctions are addressed under Criterion 1.2.

Criterion 1.2: Data Quality

Emissions data used to support action claims must meet defined minimum quality thresholds, with transparent disclosure of uncertainty and documented protocols for handling data gaps, incomplete reporting, and failure to meet quality requirements. These requirements apply to both the pre-intervention baseline and post-intervention emissions data, and the methodology used must be consistent across both measurement periods to ensure that claimed reductions reflect genuine operational changes rather than methodological artifacts.

Good

Where measurement-based data is unavailable for specific sources, engineering calculations using recognized emission factors, such as those derived from the US EPA Greenhouse Gas Reporting Program

²² United Nations Environment Programme. 2026. OGMP 2.0 on Track to Deliver Measurement-Based Methane Emissions Reporting for One-Third of Global Oil and Gas Supply by 2030. OGMP 2.0 Level 5 Assessment. [accessed 2026 Jun 18]. <https://www.ogmpartnership.org/sites/default/files/resources/2026-03/OGMP%202.0%20Level%205%20Assessment.pdf>

²³ European Parliament, Council of the European Union. 2024. Regulation (EU) 2024/1787 of 13 June 2024 on the reduction of methane emissions in the energy sector and amending Regulation (EU) 2019/942. Official Journal of the EU. OJ L, 2024/1787, 15.7.2024. [accessed 2026 Jun 17]. <https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng>

(GHGRP) Subpart W,²⁴ are permissible, but must be clearly identified as estimates, disclosed to buyers and verifiers as such, and excluded from benchmark comparisons against measurement-based inventories. For the emission source or sources directly affected by the intervention, engineering estimates are permissible only where direct pre-intervention measurement was not feasible. In such cases, the operator must document why direct measurement was not possible, disclose the emission factor methodology used, and quantify the resulting uncertainty in the claimed reduction.

Better

Data quality must be documented using a recognized tiered framework, such as OGMP 2.0 Levels 1–5. Minimum acceptable data quality is Level 3 or above for all material emission sources, including the intervention-affected sources. Operators must provide a plan with defined milestones to achieve Level 4 or higher within a specified time frame. Data gap protocols must specify how missing or incomplete data is addressed, including the specific procedure for cases where pre-intervention baseline data for an affected source must be estimated because the source has already been modified or removed. The same data quality tier must be applied consistently to both pre- and post-intervention measurements. Any methodological change between measurement periods must be disclosed and its effect on the claimed reduction separately quantified and reported to buyers.

Best

All emissions data must meet OGMP 2.0 Level 4 or Level 5 quality requirements (either directly via OGMP 2.0 or via equivalent alternatives). Uncertainty ranges must be reported in accordance with recognized guidance for each material source category. The uncertainty range of the claimed reduction must also be explicitly quantified and disclosed. Because the reduction is a difference between two measurements, its uncertainty reflects the combined uncertainty of both the pre-intervention baseline and post-intervention data and will typically exceed the uncertainty of either measurement individually. Actions must include explicit provisions

²⁴ United States Environmental Protection Agency. 2026. Greenhouse Gas Reporting Program, Subpart W: petroleum and natural gas systems. [accessed 2026 Jun 18]. <https://www.epa.gov/ghgreporting/subpart-w-petroleum-and-natural-gas-systems>

specifying the consequences when reported data fails quality requirements for any material source, including suspension or withdrawal of certification.

Explanation

Data quality determines action integrity. Emissions inventories constructed primarily from engineering estimates and generic emission factors produce results that are neither accurate nor comparable across operators. The OGMP 2.0 framework establishes a five-level hierarchy of data quality, from national inventory averages at Level 1 to full source-level measurement with top-down reconciliation at Level 5, providing a consistent benchmark for assessing and communicating the reliability of reported data.

If an operator's pre-intervention baseline for a source category relies on generic emission factors and the post-intervention measurement uses direct monitoring, the claimed reduction will partly reflect the difference between the emission factor assumption and actual facility performance, irrespective of whether the intervention itself had any effect. The methodological consistency requirements in this criterion are designed to prevent this outcome. Where a methodology change between measurement periods is unavoidable, its effect on the reported reduction must be separated from the operational change and disclosed.

Disclosure of uncertainty ranges is equally important. The claimed reduction is a difference between two measurements and as a result, its uncertainty is a combination of the uncertainty in each. Transparent uncertainty disclosure allows buyers to assess whether the claimed reduction is statistically distinguishable from zero, and prevents actions backed by imprecise data from overstating their climate impact.

Data gaps are a persistent challenge, particularly in midstream and downstream supply chain segments where reporting obligations are less developed. Gaps in pre-intervention baseline data for the affected sources present a specific problem. If a source has already been modified or removed by the time of certification, direct measurement of the pre-intervention state is no longer possible. In these cases gap-filling using recognized emission factors or engineering calculations is permissible, but the resulting baseline uncertainty must be propagated through to the reported reduction. Clear disclosure of how incomplete data is treated is essential.

The EPA's GHGRP Subpart W has long been the primary regulatory data source for US oil and gas methane reporting, though its ongoing availability and scope are subject to policy change under currently proposed rulemaking at the agency.²⁵

Principle 2: Measurement, Monitoring, Reporting, and Verification

Actions reflecting emissions rates are subject to robust MMRV practices that are adequate, precise, and independently verified using accepted methodologies. Data relating to emissions reductions/avoidance should similarly be subject to measurement and verification.

Compliance with this principle is met through four criteria.

Criterion 2.1: Emissions Measurement Completeness

Actions incorporate measurement approaches that account for the full range of emissions scenarios, including ongoing, episodic, and abnormal operation events.

Good

Actions shall be backed by measurement programs that meet at minimum the requirements of the applicable certification program. Programs shall provide transparency about measurement frequency, methodology, and known limitations in detecting episodic events.

²⁵ United States Environmental Protection Agency. 2025. Reconsideration of the Greenhouse Gas Reporting Program; proposed rule. Federal Register. Docket EPA-HQ-OAR-2025-0186. [accessed 2026 Jun 17].
<https://www.federalregister.gov/documents/2025/09/16/2025-17923/reconsideration-of-the-greenhouse-gas-reporting-program>

Better

Actions shall be backed by measurement programs that use direct measurement at the site or source level. Programs shall be conducted at a sufficient frequency to characterize both average and peak emissions, with documented protocols for detecting and quantifying episodic events.

Best

Actions shall be backed by measurement programs that integrate source-level (bottom-up) inventories with independent site- or facility-level (top-down) measurements. Where technically and economically feasible, programs shall incorporate aerial, satellite, or continuous monitoring to capture both routine and episodic emissions events, including super-emitter incidents.

Explanation

GHG emissions from natural gas operations occur across a spectrum, from documented CO₂ emissions from engines and flaring to steady-state leaks at equipment components to large, unpredictable episodic events (e.g., equipment malfunctions or unplanned venting). While these episodic events are short-lived and difficult to predict, they contribute meaningfully to total emissions. A periodic measurement program, even one conducting several surveys per year, may never observe an episodic event. This structural limitation of periodic measurement has driven the field toward continuous and high-frequency monitoring approaches as complements to traditional site-level surveys.

Two categories of measurement address different parts of the problem. Bottom-up methods (source- or component-level direct measurement) provide granular attribution of emissions to specific equipment, supporting targeted mitigation. Top-down methods (aerial surveys, satellite observation, and continuous fixed sensors) independently measure aggregate emissions from a facility or area, making them better positioned to detect the large episodic events that periodic surveys miss. This information may come from a producer's own top-down approach or a third-party that monitors and reports on episodic events. However, this approach is subject to detection limits and quantification uncertainty. Neither approach is sufficient on its own. The reconciliation of bottom-up and top-down data—comparing what a component-level inventory predicts against what independent measurement observes—is where systematic undercounting becomes visible and correctable.

The “Best” option requires this integrated approach: bottom-up and top-down measurement with continuous monitoring, where feasible, to capture both routine and episodic emissions. The “Better” option requires direct measurement at a sufficient frequency to characterize average and peak emissions, with documented protocols for episodic event detection—a meaningful step above emission-factor-based estimation, but lacks the independent top-down verification layer. The “Good” option defers to the applicable certification program's requirements while ensuring buyers understand the known limitations of the measurement methodology, particularly regarding episodic event detection.

Criterion 2.2: Reporting Protocols

Actions define clear reporting cadence, data requirements, and processes for handling non-compliance.

Good

Emissions data underlying actions shall be reported at minimum frequency defined by the certification program, with data no older than 24 months at the time of certificate issuance. The certification program shall have a documented non-compliance policy available to buyers upon request.

Better

Emissions data underlying actions shall be reported, at minimum, annually, with fixed interim reporting (e.g., semi-annual or quarterly) where the operator's monitoring infrastructure supports more frequent data collection. Data underlying a certificate shall be no older than 12 months at the time of issuance. The certification program shall maintain a documented non-compliance protocol that includes procedures for notifying buyers of material data quality or performance issues and a defined process for reviewing certification status when concerns arise.

Best

Emissions data underlying actions shall be reported, at minimum, annually, with dynamic updates triggered when material changes in operational performance are detected through continuous or high-frequency monitoring (e.g., sustained intensity exceedance, detection of a significant episodic event, or material change in production profile). Data underlying a certificate shall be no older than 12 months at the time of issuance.

The certification program shall maintain a documented protocol for handling non-compliance that includes procedures for identifying and communicating data quality or performance issues to affected buyers, processes for adjusting or suspending certification status, and defined approaches for addressing retroactive concerns when independent data (e.g., satellite or aerial measurements) materially contradicts previously certified performance.

Explanation

Reporting cadence and data vintage directly affect the reliability of claims associated with an intervention outcome. An action based on data that is more than 12 months old may not accurately reflect current operational performance—production profiles change, equipment degrades, new wells come online, and episodic events can materially alter a facility's emissions profile between assessments. Buyers relying on certified actions to represent the emissions associated with their gas consumption need assurance that the underlying data is reasonably current.

The “Best” option establishes annual reporting as the minimum and adds a dynamic element: when continuous or high-frequency monitoring detects a material change in performance, the action claim should be updated rather than waiting for the next scheduled assessment. This approach reflects the direction the monitoring landscape is moving towards and creates a tighter link between claims and actual operational conditions. The “Better” option retains annual reporting as the baseline and adds fixed interim reporting (semi-annual or quarterly) where monitoring infrastructure supports it, providing a simpler and more predictable cadence. The “Good” option defers to the certification program's own reporting schedule, establishing only a maximum data vintage of 24 months.

All three options require that certification programs maintain a documented protocol for handling non-compliance. Public detail varies by program; some (e.g., MiQ) publish registry and verification procedures, while others provide less guidance. When an operator's data is late, incomplete, or fails quality requirements, buyers need to know that a defined process exists for identifying the issue, communicating it to affected certificate holders, and determining consequences for certification status. The same applies when independently gathered data (e.g., aerial or satellite measurements) materially contradicts a certified intensity claim. The “Best” option is the most specific, requiring that programs address both prospective non-compliance and retroactive concerns when independent data contradicts prior certifications. The “Better” option requires buyer notification and a process for reviewing certification status. The “Good” option requires only that a policy exists and is available on request.

The data vintage requirements—12 months for “Best” and “Better” options, 24 months for “Good”—are intended to ensure that certificates reflect relatively current performance without dictating specific audit timing. A 12-month ceiling means buyers can be confident the data underlying their certificate was collected within the prior year. The 24-month allowance under the “Good” option accommodates programs with longer assessment cycles while still setting an outer bound on data staleness.

Criterion 2.3: Third-Party Verification

Emissions claims used to support market actions are independently verified by a qualified third party with no financial interest in the certified assets.

Good

For smaller operators, or assets where full audit is not practicable, this option provides limited, transitional assurance and cannot solely support a quantified reduction or GHG-intensity claim unless the inventory result is also independently verified.

Better

Third-party verification may be performed by any qualified, independent auditor with demonstrated expertise in oil and gas emissions quantification, provided the auditor follows a publicly available, documented verification protocol and has no financial relationship with the certified assets. The scope and findings of verification must be disclosed to buyers.

Best

Independent verification must be performed by an auditor recognized by OGMP 2.0 or by an auditor accreditation program maintained by a recognized certification body. The verifier must provide, at minimum, a reasonable assurance opinion on the completeness and accuracy of the emissions inventory, and the methodology used to derive certified methane intensity. Verification reports must be made available to buyers upon request.

Explanation

Without independent verification, emissions claims rest on operator self-reporting, creating incentives for underestimation and limiting buyers' ability to compare performance across assets. MiQ and EO100 both require independent third-party auditing as a condition of certification.^{26,27} The EU Methane Regulation similarly mandates independent third-party verification at a reasonable assurance level for operators subject to its requirements.²⁸ Auditor quality and independence are critical. Reviewers with financial ties to certified assets, or without demonstrated sector expertise, cannot provide reliable assurance.

The three options differ on two dimensions: auditor qualification and depth of assurance. The “Best” option requires a formally accredited auditor and a reasonable assurance opinion, the highest standard in professional auditing, meaning the auditor has done sufficient work to be confident the inventory is materially correct. The 'Better' option accepts any qualified independent auditor with sector expertise and does not specify an assurance level, meaning the depth of work may vary. The 'Good' option is categorically different. It is not a full audit of the inventory but a review of measurement methodology and sampling approach, asking whether a defensible process was followed rather than whether the resulting number is correct. The 'Good' option is appropriate only where a full audit is not practicable.

Criterion 2.4: Data Transparency

Actions are supported by emissions data disclosure sufficient to enable buyers to evaluate the quality and context of certified performance.

²⁶ Equitable Origin. 2025. EO100 standard for responsible energy development. [accessed 2026 Jun 17]. <https://www.equitableorigin.org/certification>

²⁷ MiQ. 2024. Accredited Auditors. [accessed 2026 Jun 17]. <https://miq.org/auditors/>

²⁸ European Parliament, Council of the European Union. 2024 Jun 13. Regulation (EU) 2024/1787 of the European Parliament and of the Council on the reduction of methane emissions in the energy sector. European Union. [accessed 2026 Jun 18]. <https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng>

Good

Certified methane intensity and measurement methodology must be disclosed to the certifying body and be available to buyers upon request. Summary information must be publicly accessible, including the certifying program name and the certified methane intensity grade or value. Operators must also make the share of total production or throughput represented by certified assets, and company-wide emissions intensity available upon request.

Better

Public disclosure must include: (a) certified methane intensity for covered assets, (b) the measurement methodology used, and (c) the identity of the independent verifier. Segment-level disclosure is encouraged but may be reported in aggregate where facility boundaries, co-located operations, or data systems prevent defensible segment attribution. The share of the operator's total production (or throughput) represented by the certified assets, and the operator's company-wide emissions intensity, must be disclosed to the certification body and included in buyer-facing documentation.

Best

Public disclosure must include at minimum: (a) certified methane intensity for covered assets reported by supply chain segment where feasible, (b) the measurement methodology and data quality tier used, (c) the identity and credentials of the independent verifier, (d) the share of the operator's total production or throughput represented by the certified assets, (e) the operator's company-wide emissions intensity, regardless of which assets are certified, and (f) certified methane intensity for the certified assets in each of the prior two reporting periods, where available, to allow buyers to assess the trajectory of the operator's certified performance over time.

Explanation

Action credibility depends on transparency. Certified emissions data that is not publicly accessible cannot be independently scrutinized, compared across programs, or used by buyers to distinguish genuine performance leaders from operators who have selectively certified their cleanest assets. Selective certification—a practice where an operator achieves a high-grade action backed by its best-performing assets, while its overall emissions profile

remains unreformed—is an integrity risk in the current differentiated gas market. Requiring disclosure of both asset-level certified performance and company-wide emissions intensity is the primary mechanism for identifying and mitigating this practice. Segment-level disclosure matters too, as emissions intensity varies significantly across the supply chain, and aggregate figures can obscure material differences in performance at the production, gathering, processing, or transmission level.

The three options differ on two dimensions: completeness of required disclosures and how those disclosures are made accessible. The 'Best' option requires the fullest picture—asset-level performance by supply chain segment, verifier credentials, the share of total production represented by certified assets, company-wide intensity, and two years of historical trajectory—because each element addresses a distinct accountability gap: segment-level data reveals where in the supply chain emissions occur; verifier credentials allow buyers to assess audit quality; and portfolio coverage share combined with company-wide intensity together expose selective certification. The 'Better' option narrows the required disclosure set: segment disaggregation becomes optional, verifier credentials are no longer required, and the portfolio coverage fraction is dropped; company-wide intensity is retained as a required public disclosure. The main gap relative to the 'Best' option is the absence of coverage fraction, which limits buyers' ability to detect selective certification without independent research. The 'Good' option steps down primarily on accessibility: detailed data is available to buyers upon request, rather than proactively published, and the minimum public record is reduced to program name and certified grade or value. Proactive public disclosure is what allows independent market scrutiny by analysts, researchers, and other buyers without a direct contractual relationship.

Principle 3: Additionality

Additionality is a critical consideration for impact accounting. Impact-based interventions must represent incremental, additional emissions reductions demonstrated against credible baselines. This ensures that the certified performance reflects genuine operational change rather than selection of assets that are already low emitting. Additionality requirements for impact accounting will also depend on the relevant accounting and reporting guidance (e.g., GHGP AMI, TCAT, AIM, etc.) for an organization.

Compliance with this principle is met through four criteria.

Criterion 3.1: Regulatory Additionality

Interventions go above and beyond applicable regulatory requirements.

Better

Interventions must exceed what is required under enforced and applicable federal, state, or local regulation. This option measures additionality relative to requirements that are stated and actually enforced in a relevant jurisdiction. It carries a risk that interventions which are legally required but not yet enforced could be claimed as additional, or a risk that if an operator has surpassed a threshold that will eventually result in a regulatory requirement, even if it is not in place yet, this could be claimed as additional.

Best

Interventions must exceed what is required under applicable federal, state, or local regulation, regardless of what is currently enforced and with regular revisits of updated regulatory baselines (e.g., time between revisits not to exceed three years, reflecting potentially dynamic regulatory requirements) throughout the intervention lifetime. The applicable regulatory requirement should be explicitly identified, including federal, state, and local rules and any scheduled future tightening. Intervention performance should be measured against the most stringent of these. Revisiting the intervention, and comparing it against the current regulatory baseline, at intervals that do not exceed three years or more frequently if a material regulatory change occurs, ensures that the action continues to reflect performance that goes beyond, rather than converging toward, the legal requirement.

Explanation

Meeting regulatory additionality ensures that an intervention’s emissions impact is the result of a voluntary action, and not due to something that the law already requires. However, the regulatory floor can move. Therefore, regulatory considerations should be regularly revisited to ensure that any intervention is additional to the current application of relevant regulations.

The two options proposed differ in how they treat enforcement. The 'Best' option is more conservative, as it measures against what a regulation requires, regardless of whether it is currently enforced, and it requires periodic

re-baselining as regulatory requirements evolve. This first consideration is to prevent interventions from claiming regulatory additionality if they are expected to be required in the future, even if they are not at the time of implementation. This guards against under-enforcement and regulatory drift. The 'Better' option measures against enforced requirements only, making it simpler and more predictable for operators but also vulnerable to claiming credit for reductions that will soon be required or are technically already required but not enforced.

Criterion 3.2: Baseline Credibility

Interventions must establish a credible emissions baseline against which the impact of the intervention can be measured. Baselines must reflect prior conditions as accurately as possible.

Good

For interventions in highly regulated jurisdictions with a documented, declining performance standard trajectory, a regulatory baseline may serve as the primary reference point. In these instances, the baseline reflects the most stringent applicable standard in the relevant jurisdiction, and will be updated as regulations tighten. Documentation associated with the intervention will note the specific regulation. Credited performance must remain more stringent than any applicable regulatory requirement. For interventions in non-highly regulated jurisdictions, please see the following options for guidance.

Better

Where sufficient operator-specific historical data is not available, a performance benchmark baseline may be used, derived from independently verified, basin-level or peer-group emissions data for comparable operations in the same supply chain segment and basin. The benchmark shall be drawn from a defined, documented population of comparable assets and reviewed on a fixed cycle so that it reflects current basin performance rather than a fixed historical point. The source, vintage, and composition of the dataset used to determine the benchmark must be disclosed and the benchmark must be the most granular one available, with a preference for segment- and basin-specific data over national averages. Interventions certified against a performance benchmark baseline should carry that limitation within their disclosure.

Best

Baselines shall be asset- or facility-specific and determined based on prior emissions performance, using a minimum of three years of measurement-based performance data collected under OGMP 2.0 Level 4 or Level 5 protocols, or a demonstrably equivalent measurement-based methodology.²⁹ The baseline shall be expressed as an emissions intensity (or as absolute emissions, where appropriate to the intervention) for the specific asset, facility, or operation, and disaggregated by supply chain segment if an intervention covers more than one segment. The baseline period must precede the intervention and represent normal operating conditions.

Explanation

A credible baseline is the reference against which any claimed reduction is measured. The core risk for differentiated lower-emissions gas is that national or generic emissions factors, commonly used in corporate emissions reporting, do not always accurately represent the upstream and midstream GHG emissions for a given unit of natural gas. These emission factors can underestimate actual GHG emissions and cannot distinguish between high- and low-performing operators within a given area.³⁰ The 'Best' option baseline, built on an operator's own measured, multi-year performance, is preferred because it isolates the effect of the specific intervention from differences in geology, gas composition, or asset mix that complicate cross-operator comparison. Where available, multiple years of required data should be used for establishing the baseline, to smooth year-to-year operational variability while remaining attainable for operators that already report at OGMP 2.0 Level 4 or Level 5.

If establishing a detailed operator-specific baseline is infeasible, actions and interventions can use the 'Better' option, which is an independently verified basin- or peer-group benchmark for the same supply chain segment and basin where the intervention occurs. Because basin-level and peer benchmarks (e.g., the aggregate

²⁹ United Nations Environment Programme. 2020. Oil and Gas Methane Partnership 2.0. [accessed 2026 Jun 17]. <https://www.ogmpartnership.org/>

³⁰ Alvarez RA, Zavala-Araiza D, Lyon DR, et al. 2018. Assessment of methane emissions from the U.S. oil and gas supply chain. Science. 2018;361(6398):186-188. <https://doi.org/10.1126/science.aar7204>

member-company upstream methane intensity reported by the Oil and Gas Climate Initiative)³¹ reflect a population of operators rather than a specific asset, these benchmarks are a weaker control for genuine change. For this reason they are positioned as a fallback, and are not the preferred option. In jurisdictions with a documented, tightening performance standard, a 'Good' option regulatory baseline may be a permissible benchmark. This approach introduces additional considerations, such as ensuring that the emissions following the intervention fall to a level that is notably lower than the regulatory standard, and that the baseline is updated over time to reflect changes in any relevant regulation.

Criterion 3.3: Net Emissions Abatement

Intervention impacts represent the measured difference between emissions after the intervention and emissions in the established baseline.

Good

The intervention results in an emissions reduction relative to a regulatory benchmark. In this instance, the reduction is measured as the difference between the certified intervention performance and the regulatory benchmark. Because the baseline benchmark for emissions declines as regulation tightens, the intervention must reference the benchmark that is in force at the time of the intervention measurement, and re-evaluate against the updated benchmark at defined intervals.

Better

The intervention results in an emissions reduction relative to a performance threshold or basin-level average based on independently verified, facility-specific measurement data. The threshold must be set by reference to a recognized, independently maintained benchmark and must sit demonstrably below typical performance for the segment and basin, so that the intervention represents genuine outperformance rather than ordinary practice. The implementer of the intervention must disclose the chosen threshold, its source, and date of last

³¹ Oil and Gas Climate Initiative. 2026. OGCI's methane intensity target. [accessed 2026 Jun 17].

<https://www.ogci.com/methane-emissions/methane-intensity-target/>

review as well as provide evidence to ensure that the claimed reduction is not overstated due to the use of an inaccurate performance threshold.

Best

The intervention results in an emissions reduction relative to the asset or facility-specific established baseline, based on independently verified, facility-specific measurement data. The reduction shall be calculated as the difference between post-intervention measured emissions and the *Criterion 3.2* baseline over comparable operating periods, using a consistent measurement methodology. The reduction must be additional to any concurrent change in production volume or asset configuration that would lower emissions for reasons unrelated to the intervention itself. The minimum required reduction should be defined per supply chain segment and basin type.

Explanation

Performance additionality answers whether a real, measured emissions reduction occurred. Selecting existing, low-emitting assets presents an integrity risk because claiming their performance as a reduction is misleading and could encourage action that does not drive any operational change.³² The three options provided above differ based on the reference for the reduction. The 'Best' option measures the reduction against the asset's own baseline (see *Criterion 3.2*), directly reflecting actual improvement resulting from the intervention. The 'Better' option measures against an external performance threshold or basin-specific average. It aims to align with recognized benchmarks, which is simpler to administer. However, referencing a static threshold that does not accurately reflect the context-specific situation prior to the intervention means that the emissions reduction could be overstated. The 'Good' option measures against a regulatory benchmark with a declining emissions trajectory, which is only relevant in certain jurisdictions. The declining trajectory guards against crediting performance that will soon be required. However, some of the same concerns seen within the 'Better' option will exist with the 'Good' option: emissions performance against the baseline may not necessarily reflect the change resulting from an intervention.

³² Alvarez RA, Zavala-Araiza D, Lyon DR, et al. 2018. Assessment of methane emissions from the U.S. oil and gas supply chain. *Science*. 2018;361(6398):186-188. <https://doi.org/10.1126/science.aar7204>

Criterion 3.4: Financial Additionality

Interventions are credibly tied to transactions or demand signals in the market for differentiated lower-emissions gas.

Better

Interventions are undertaken in response to general demand for lower-emissions gas, with supporting evidence of the timeline relationship between market demand and intervention. The evidence should establish that the operational change followed, and was plausibly motivated by, an identifiable demand signal (e.g., documentation that the intervention was initiated after entering or in anticipation of a lower-emissions gas offtake arrangement or in response to general growing demand for the differentiated lower-emissions gas). This option requires a credible and evidenced linkage between market demand and the intervention.

Best

The buyer’s action is a requirement for the intervention to occur either by enabling an unprofitable intervention or providing an additional revenue stream that makes the project more financially attractive to the point of pursuing. That is, it would not have occurred absent an anticipated price premium, forward purchase agreement, investment in, or revenue stream associated with the intervention. Operators must provide credible documentation supporting this dependence. Acceptable documentation may include investment analysis showing that the intervention was not economically feasible absent revenue from the transaction, budget approvals contingent on the intervention and action arrangement, or contractual terms that materially changed the intervention’s financial case.

Explanation

Financial additionality applies a test that is common in the voluntary carbon market, asking if the intervention would have happened anyway, absent the revenue or demand signal created by a specific action. This test is harder to satisfy for upstream and midstream natural gas methane emissions mitigation than for other carbon market activities, because captured gas has intrinsic value. Abatement that reduces leakage frequently pays for itself, meaning a profit-motivated operator would have likely undertaken the action regardless. This dynamic, that many methane-abatement measures are low- or negative-cost because captured gas has value (though economics vary by

asset and market context) is why financial additionality is a nuanced topic for lower-emissions gas. Additionally, in upstream and midstream natural gas, interventions may be profitable, but not to the same level as other non-abatement projects a producer can undertake. For example, in a high price environment, capital returns will be higher for a producer drilling a new well than for abating methane emissions from an old well, even if the latter is profitable. This is why it should be treated on a case-by-case basis.

The 'Best' option sets the highest bar, requiring documented evidence that an action (e.g., action purchase, investment, etc.) was necessary for the intervention to occur, either by enabling the intervention or improving its financial attractiveness. It is the preferred approach when demonstrating the financial additionality of a reduction intervention. The 'Better' option provides a standard that is more pragmatic in certain scenarios, requiring evidence that the intervention responded to broader demand signals.

Principle 4: Supply Chain Coverage

Actions transparently describe supply chain coverage with appropriate geographic specificity, enabling buyers to understand which segment or segments of the supply chain are covered and how physical asset location relates to claims associated with an intervention outcome.

Compliance with this principle is met through three criteria.

Criterion 4.1: Segment Disclosure

Actions must clearly disclose which segment or segments of the natural gas supply chain are covered by the certified emissions claim.

Good

Actions shall disclose which supply chain segments are covered by the certified emissions claim. For each uncovered segment, actions shall provide an estimated emissions contribution derived from a published national segment-level benchmark, with the source and vintage disclosed. Segment boundary definitions used by the certifying program shall be available to buyers upon request.

Better

Actions shall disclose which supply chain segments are and are not covered by the certified emissions claim. Uncovered segments shall be identified by name with directional context on their expected materiality relative to covered segments (e.g., "uncovered segments are expected to represent a smaller share of total supply chain GHG emissions"). Furthermore, estimates for uncovered segments shall be derived from measurement-based basin- or region-level benchmarks where the certified gas originates, with the source, vintage, and basis of geographic attribution disclosed. Actions shall disclose the segment boundary definitions used.

Best

Actions shall disclose which supply chain segments are covered and which are not covered by the certified emissions claim. For uncovered segments, actions shall provide estimated emissions contributions using operator-specific data where available, or industry-level benchmarks where this data is unavailable, enabling buyers to assess the magnitude of uncovered supply chain emissions relative to the claim. Actions shall disclose the segment boundary definitions used to delineate coverage (e.g., where production ends and gathering begins), particularly where operations are co-located across segments.

Explanation

The natural gas supply chain spans multiple segments—production, gathering, boosting, processing, transmission, storage, and distribution—each with distinct emissions profiles, different operators, and uneven measurement infrastructure. The relative contribution of each segment matters: an action covering only production captures the largest single source but leaves meaningful emissions (particularly gathering, boosting, transmission, and storage) unaddressed. Certification programs have expanded their segment coverage over time but remain uneven. MiQ certifies individual facilities across production, gathering, boosting, processing, transmission, storage, liquefaction, shipping, and regasification. MiQ also offers a Supply Chain Protocol that allows buyers to estimate supply chain methane intensity when one or more segments are not certified.³³ Equitable Origin also developed segment-specific

³³ MiQ. 2024. MiQ Supply Chain Protocol. [accessed 2026 Jun 18]. <https://miq.org/technical-information/supply-chain-protocol/>

technical supplements for production, gathering, processing, transmission, and storage.³⁴ Project Canary's TrustWell certification, which covered upstream and some midstream operations, shifted away from marketing TrustWell as a certification toward environmental assessments in 2023.³⁵ No program currently certifies the local distribution segment.

Because most actions on the market today cover only a portion of the supply chain, buyers face a basic transparency problem. A certificate may represent rigorous measurement of production-stage emissions, but the buyer has no visibility into the emissions associated with downstream segments through which the same gas flows. The 'Best' option addresses this by requiring disclosure of both covered and uncovered segments, with estimated emissions for uncovered segments helping buyers assess how much of the total supply chain footprint the action actually represents. The 'Better' option requires identification of uncovered segments with directional context on their expected materiality, and measurement-based basin- or region-level benchmarks. The 'Good' option establishes a minimum floor: actions must state what they cover and name what they do not with a national segment-level benchmark.

All three options require transparency about segment boundary definitions. This is a practical issue with real consequences for comparability: operations in some regions involve co-located production, gathering, and processing at a single facility, making it difficult to cleanly separate segment-level emissions. Different programs and operators draw these boundaries differently, which affects how emissions are allocated and can make comparisons unreliable if the definitions are not disclosed.

Criterion 4.2: Geographic Specificity

Actions must provide sufficient geographic specificity to enable buyers to assess the relevance of certified performance to their actual gas consumption.

³⁴ Equitable Origin. 2022. EO100 technical supplements: natural gas production, gathering/boosting and processing, and transmission and storage. [accessed 2026 Jun 17]. <https://www.equitableorigin.org/eo100-portal>

³⁵ Stockman L, Rowell A, Trout K, Eisenfeld J, Raynes D. 2023 Apr 17. Certified disaster: how Project Canary and gas certification are misleading markets and governments. Earthworks, Oil Change International; [accessed 2026 Jun 18]. <https://priceofoil.org/2023/04/17/certified-disaster-report/>

Good

Actions shall identify at minimum the national or subnational level and the supply chain segment(s) covered. Where more precise geographic identification is available, it should be disclosed.

Better

Actions shall identify, at minimum, the basin or region of production, and the relevant pipeline system or market hub through which certified gas enters interstate commerce. This information shall be sufficient to enable buyers to assess whether the certified production originates from an area with a comparable emissions profile to their own supply region, even where direct basin matching is not feasible.

Best

Actions shall identify the operator, the certified asset or facility, and the basin or sub-basin from which certified gas originates. To direct demand toward operators in the regions most relevant to their emissions footprint, buyers should preferentially source actions from the basin or production area where their gas consumption occurs. Geographic information shall be sufficiently granular to allow buyers to assess whether the emissions profile of certified production is representative of conditions in their supply region.

Explanation

Natural gas molecules are commingled throughout pipeline systems, making physical tracing from producer to consumer infeasible. Some physically segregated supply pathways do exist, but outside of those cases, differentiated gas actions are attribute-based rather than molecule-tracked, meaning a buyer purchasing a certificate is not receiving the specific gas molecules associated with said certificate. Similar to how renewable energy certificates function in electricity markets, the electron and the environmental attribute travel separately.

However, for two reasons, geographic specificity still matters. First, where an action is used attributionally to characterize the emissions associated with a buyer's own gas supply, geographic relevance affects whether the differentiated lower-emissions intensity is representative of that supply. GHG emissions intensity varies significantly across US supply basins. Measurement-based inventories report basin-level methane emissions intensity ranging

from below 1% to above 4% of delivered gas.³⁶ A certificate from a low-intensity basin may not accurately represent the emissions profile associated with a buyer's gas supply if that supply originates from a higher-intensity region. Second, in-basin sourcing can function as a targeted demand signal. When buyers purchase certificates from the same basin where their gas consumption occurs, they create competitive pressure for operators in that specific region to pursue certification and reduce emissions. This demand-side logic has been advanced as a strategy for driving marginal emissions reductions in basins where they are most needed.

Both purposes are distinct from whether an action supports a credible claim. Where an action is used for impact accounting, the credibility of the abatement does not by itself require that the asset and intervention sit within the buyer's value chain. Geographic specificity under this criterion therefore supports representativeness and demand signal rather than serving as a precondition for a credible claim. Buyers should confirm the association requirements of the reporting framework they apply, as these vary.

Certification availability appears concentrated in basins with lower measured methane intensity.^{37,38} Basin-matching, where feasible, is a mechanism for directing buyer demand toward regions where certification may have the greatest incremental impact. The 'Best' option establishes operator-level identification as the standard to account for intra-basin variability of methane and recommends in-basin sourcing as a preferred practice. The 'Better' option requires basin or regional identification, along with pipeline system or market hub information, giving buyers the context needed to assess geographic relevance (even where direct matching is not practical). The 'Good' option is a disclosure floor: nation or subnation of production and segments covered.

³⁶ Omara M, Himmelberger A, MacKay K, Williams JP, Benmergui J, Sargent M, Wofsy SC, Gautam R. 2024. Constructing a measurement-based spatially explicit inventory of US oil and gas methane emissions (2021). *Earth System Science Data*. 2024;16(9):3973-3991. <https://doi.org/10.5194/essd-16-3973-2024>

³⁷ International Energy Agency. 2025. Prospects for Natural Gas Certification. [accessed 2026 Jun 17]. <https://iea.blob.core.windows.net/assets/1f42328c-93da-4725-91e9-cbacb68453c2/Prospectsfornaturalgascertification.pdf>

³⁸ Omara M, Himmelberger A, MacKay K, Williams JP, Benmergui J, Sargent M, Wofsy SC, Gautam R. 2024. Constructing a measurement-based spatially explicit inventory of US oil and gas methane emissions (2021). *Earth System Science Data*. 2024;16(9):3973-3991. <https://doi.org/10.5194/essd-16-3973-2024>

Criterion 4.3: Registry Integrity

Actions must be registered in a tracking system that prevents double counting and ensures chain-of-custody integrity.

Better

Where a centralized registry is not yet available, actions shall be accompanied by a documented chain-of-custody methodology and contractual provisions preventing resale or double-claiming of the same certified attributes within the same value chain layer. The action provider shall commit to transitioning to registry-based tracking once infrastructure becomes available.

Best

Actions shall be issued and tracked through an independent, third-party registry that uniquely serializes each unit, prevents the same certified unit from being claimed by multiple buyers within the same value chain layer, and retires actions upon use. The registry shall provide public or buyer-accessible records of issuance, transfer, and retirement, and shall be capable of distinguishing valid co-claiming across value chain layers from double counting within the same layer.

Explanation

Double counting—where the same certified volume or environmental attribute is claimed by more than one buyer—is a foundational threat to market integrity. In electricity markets, this risk is managed through established registries that uniquely serialize each certificate, track transfers, and permanently retire units upon claim. The natural gas certificate market lacks an equivalent unified infrastructure.

Several registries currently host differentiated gas certificates, but because certified gas attributes are inherently linked to the registry in which they were created, platforms developed by a third-party need to be linked back to the originating registry to verify retirement and prevent the same attribute from being double-counted. This fragmentation creates risk. A certificate issued on one registry could, without adequate safeguards, be represented on a second platform without the first platform recording its retirement. While existing registries have the capability

to assign unique IDs and track attributes, they have not yet fostered an active, standardized market. Furthermore, the registries themselves have not pushed for standardized certificates across platforms.

The 'Best' option establishes the expectation that actions should be tracked through a registry following the model of electricity markets: unique serialization, transfer tracking, retirement upon claim, and accessible records to buyers or the public. The 'Better' option acknowledges that at present, not all actions will have access to mature registry infrastructure. Therefore, it provides a transitional pathway through contractual safeguards and a commitment to migrate to registry-based tracking as the market develops. Both options are designed to ensure that a buyer making a claim based on a differentiated gas action can be confident that the same claim is not being made by another buyer in the same position.

Principle 5: Harms and Co-benefits

Support of actions through procurement should not cause harm and should deliver environmental and community co-benefits beyond GHG reduction, including reductions in co-pollutants and improved air quality for neighboring communities.

Compliance with this principle is met through four criteria.

Criterion 5.1: Co-benefit Prioritization

Actions should prioritize projects operating in or near areas where GHG abatement will deliver the greatest air quality and public health co-benefits. This includes areas designated as nonattainment under federal air quality standards and communities with disproportionate cumulative environmental burdens. For actions covering multiple supply chain segments (e.g., production, gathering, processing, and transmission), geographic context and co-benefit characterization should be provided for each segment, since co-pollutant profiles and community exposure pathways differ across the supply chain.

Good

Geographic context may be disclosed at the regional or basin level where physical traceability or confidentiality constraints prevent more specific attribution. Disclosure must indicate whether operations are conducted in a region with active nonattainment designations for any criteria pollutant.

Better

Operators must disclose whether covered assets are proximate to population centers or communities with documented air quality concerns, using available data sources including EPA's National Emissions Inventory, state air quality agency data, or air quality monitoring records, reported at minimum at the county or basin level.

Best

Operators must document and disclose whether covered assets are located within or in proximity to: (a) areas designated as nonattainment, or maintenance areas under the National Ambient Air Quality Standards for ozone or PM_{2.5}³⁹, and/or (b) census blocks with estimated lifetime cancer risk from air toxics at or above 100 in 1 million as reported in EPA's AirToxScreen, or the most recent equivalent state-level assessment.⁴⁰

Operators must disclose proximity to communities identified as disadvantaged using a recognized federal or state screening tool.⁴¹ Buyers should prioritize actions tied to verified abatement that demonstrably reduce net co-pollutant burdens in these areas and that meet the non-exacerbation and community-engagement criteria below.

³⁹ United States Environmental Protection Agency. 2026. Nonattainment areas for criteria pollutants (Green Book). [accessed 2026 Jun 18]. <https://www.epa.gov/green-book>

⁴⁰ United States Environmental Protection Agency. 2022. AirToxScreen frequent questions. [accessed 2026 Jun 18]. <https://www.epa.gov/AirToxScreen/airtoxscreen-frequent-questions>

⁴¹ Public Environmental Data Partners. 2025. EPA EJScreen (version 2.3, reconstructed). [accessed 2026 Jun 17]. <https://screening-tools.com/epa-ejscreen>

Explanation

Methane is nearly always co-emitted with volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) (e.g., benzene, toluene, and formaldehyde). Combustion processes throughout the supply chain (e.g., flaring and compression) also result in criteria air pollutants (CAPs), primarily nitrogen oxides (NOx) which, combined with VOCs, contribute to ozone formation and pose risks to human health.⁴² Peer-reviewed research has associated oil and gas air pollution with elevated rates of asthma, cardiovascular disease, preterm birth, and certain cancers, with these health burdens falling disproportionately on low-income communities and communities of color. Methane and co-pollutants are typically emitted simultaneously, meaning abatement interventions (e.g., reductions in fugitive emissions, venting, flaring, and pneumatic device operation) usually target both. However, the air quality benefit is not necessarily uniform. Co-pollutant concentrations matter most where ozone burdens are already elevated (e.g., population centers and basins with high-VOC gas streams). Wet gas, associated gas, and condensate-rich production generally carry higher heavier-hydrocarbon and benzene, toluene, ethylbenzene, and xylene (BTEX) content than dry, pipeline-quality gas. Basin labels are useful screening indicators, but are not substitutes for asset-level gas composition. Thus, the co-benefit per unit of methane reduced varies considerably by geography.⁴³

Geographic disclosure lets buyers identify where their investment is likely to deliver the most combined climate and air quality value. Co-pollutant profiles also vary by supply chain segment. Production sites offer the most direct air quality co-benefit: tank emissions, pneumatic controllers, and wellhead fugitives release HAPs and VOCs along with methane. Gathering and boosting compressor stations are powered by reciprocating engines that generate NOx which in turn contributes to ozone formation. Gas processing facilities are also potentially significant sources of HAP and combustion-related NOx emissions, while transmission compressor stations generate NOx along pipeline corridors crossing varied community geographies. Buyers evaluating actions that span multiple segments should factor these differing profiles into their geographic co-benefit assessment.

⁴² Buonocore JJ, et al. 2023. Air pollution and health impacts of oil and gas production in the United States. *Environmental Research: Health*. 1(2):021006. <https://iopscience.iop.org/article/10.1088/2752-5309/acc886>

⁴³ Michanowicz DR, et al. 2021 Oct 6. Methane and Health-Damaging Air Pollutants From the Oil and Gas Sector: Bridging 10 Years of Scientific Understanding. *Physicians, Scientists, and Engineers for Healthy Energy*; [accessed 2026 Jun 18]. https://www.psehealthyenergy.org/wp-content/uploads/2022/07/Full-Report_Bridging-10-Years-of-Scientific-Understanding.pdf

EPA’s AirToxScreen estimates lifetime cancer risk from air toxics at the census block level. The EPA’s established benchmark for significant risk is 100 in 1 million, which is over 3 times the 2020 national average of roughly 30 in 1 million.^{44,45} This threshold captures communities with the most acute HAP exposure. Areas below this level, but still above the national average, are also elevated-concern geographies worth prioritizing under the 'Better' option. Geographic prioritization is strongest where the nonattainment designation or elevated cancer risk is driven by oil and gas operations in the relevant supply chain segment, not primarily by transportation, heavy industry, or other sources.

Criterion 5.2: Co-pollutant Disclosure

Operators disclose the types of co-pollutant reductions associated with certified GHG abatement activities and provide sufficient compositional and operational information to allow buyers to assess the nature and relative magnitude of co-benefits, without requiring full quantification.

Good

Operators must attest that the certified GHG abatement activities covered by the actions inherently reduce CAPs, VOC, and/or HAP emissions as a co-benefit of the GHG reduction, and confirm that no active enforcement actions related to air quality are pending at any covered facility. If known, operators must also attest how certified GHG abatement activities impact other GHG emissions as certain interventions, such as flaring, can lead to an increase in CO₂ emissions.

Better

Operators must identify the primary co-pollutants associated with emission sources targeted by certified abatement activities, using available data sources including EPA emissions factors by equipment type (e.g.,

⁴⁴ United States Environmental Protection Agency. 2022. 2020 AirToxScreen assessment results. [accessed 2026 Jun 18]. <https://www.epa.gov/AirToxScreen/2020-airtoxscreen-assessment-results>

⁴⁵ AirToxScreen is a screening-level indicator and should be supplemented with local monitoring, permitting, or modeled data before asset-level claims are made.

AP-42), gas composition data where available, or operator-reported data from state air permit applications.⁴⁶ Operators must confirm that all covered operations comply with applicable federal and state air quality regulations. Compositional data should be disclosed where available but is not required.

Best

Operators must disclose, organized by segment (e.g., production, gathering, boosting, processing, transmission, and storage) where the certified action covers multiple segments of the supply chain: (a) gas composition data (inclusive of VOC content); (b) HAP species composition of produced or transported gas in the certified supply chain segment; (c) the specific abatement activities covered by the action (e.g., leak detection and repair programs, pneumatic device replacement, flare and vent reduction, or tank emissions controls) and the co-pollutants impacted by each approach; (d) whether any covered operations are subject to active enforcement actions, consent decrees, or notices of violation related to HAP, VOC, or particulate emissions; and (e) where a quantitative estimate of health co-benefits from co-pollutant reductions has been prepared using a tool such as EPA's COBRA model, such estimates should be disclosed.

Explanation

Air quality co-benefits from GHG abatement depend on which emissions sources are targeted, the VOC and HAP content of the gas stream, and the abatement technology used. Reducing fugitive emissions from wellhead equipment, replacing pneumatic controllers, and improving leak detection and repair program frequency all simultaneously reduce methane and co-pollutants, including benzene and heavier hydrocarbons. Flaring is different because it converts methane and VOC venting into combustion products, reducing methane emissions while generating NO_x, black carbon, and other byproducts. Buyers should weigh this trade-off when evaluating flaring-based abatement. Gas composition is a key variable: wet gas streams contain significantly higher concentrations of heavier hydrocarbons and HAPs than dry gas streams, meaning co-benefit magnitudes per unit of methane reduced are not uniform across basins or asset types. Compositional data and abatement activity

⁴⁶ United States Environmental Protection Agency. 1995. AP-42: compilation of air pollutant emission factors. Volume I, Chapter 5: petroleum industry. [accessed 2026 Jun 17]. <https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-5-petroleum-1>

disclosures give buyers what they need to assess co-benefit potential without requiring operators to fully quantify every outcome. Where quantitative estimates are needed, EPA's COBRA can screen county-level PM_{2.5} and ozone co-benefits, and BenMAP can estimate health impacts from modeled air-quality concentration changes. HAP and cancer-risk analysis may require separate dispersion or risk modeling.⁴⁷⁴⁸

The segment-level disclosure required under the 'Best' option reflects a real difference in co-pollutant profiles across the supply chain. At the production stage, raw gas at the wellhead contains the highest concentrations of heavier hydrocarbons and HAPs before processing removes them, making production-stage sources (e.g., tanks, pneumatic devices, dehydrators, and fugitives handling raw or condensate-rich streams) important VOC and HAP exposure points. Gathering and boosting stations are the primary source of NO_x from reciprocating and centrifugal compressor engines. Processing facilities introduce an additional HAP exposure risk through glycol dehydrators and amine gas sweetening units. Transmission and storage operations generate NO_x from combustion turbines and pipeline compressors distributed across extended corridors. The segment breakdown matters most when covered operations are in the high-priority geographies under Criterion 5.1, since the gas stream composition and abatement activity type determine where along the supply chain the co-benefit lands.

Criterion 5.3: No Net Harm

Actions do not increase net air pollutant burdens on communities in proximity to covered operations because of certified abatement activities.

Good

Operators must confirm that certified abatement activities comply with all applicable federal, state, and local air quality regulations and do not increase net CAP, HAP, or VOC emissions at the facility or asset level, and disclose any known trade-offs between GHG reductions and other air pollutant increases resulting from certified activities.

⁴⁷ United States Environmental Protection Agency. 2026. BenMAP: environmental benefits mapping and analysis program. [accessed 2026 Jun 18]. <https://www.epa.gov/benmap>

⁴⁸ United States Environmental Protection Agency. 2026. CO-Benefits Risk Assessment (COBRA) health impacts screening and mapping tool. [accessed 2026 Jun 17]. <https://www.epa.gov/cobra>

Better

Operators must confirm compliance with applicable federal, state, and local air quality regulations at certified facilities and disclose any active enforcement actions related to air quality at covered operations.

Best

Operators must: (1) confirm with monitoring data or modeled analysis that certified abatement activities do not increase net emissions or modeled ambient concentrations of relevant CAPs, VOCs, or HAPs in affected communities; (2) identify any certified abatement activities that involve a trade-off between GHG and CAP or HAP emissions, such as venting-to-flaring conversions, and document the net air quality impact of such trade-offs; and (3) disclose any active enforcement actions, consent decrees, or notices of violation related to air quality at covered facilities.

Explanation

Most methane abatement delivers air quality co-benefits but combustion-based controls (e.g., flaring, enclosed combustors, thermal oxidizers) require special scrutiny because they can reduce methane and VOC venting while increasing NO_x, CO, PM, black carbon, or formaldehyde. Activities that increase truck traffic, lighting, or noise near production sites can affect community quality of life even where air pollutant concentrations stay within regulatory limits. In the nonattainment areas and high-AirToxScreen geographies prioritized under [Criterion 5.1](#), the non-exacerbation requirement matters most. A net increase in co-pollutant burden in communities already carrying elevated air quality burdens would undercut the entire case for geographic prioritization. Where trade-offs are identified, operators should document what the trade-off is and what mitigation steps were taken.

Criterion 5.4: Community Engagement

Operators should demonstrate meaningful engagement with communities affected by covered operations, with particular attention to Indigenous, frontline, and recognized environmental justice communities.

Good

Operators must document any community engagement processes conducted in relation to certified operations, including the nature, timing, and geographic scope of engagement, reported at the project or asset level at a minimum.

Better

Operators must disclose any formal complaints, legal challenges, or documented community opposition related to air quality or environmental impacts at covered facilities received within the past three years.

Best

Operators must: (1) document community engagement processes conducted in relation to certified operations, including the timing, format, and scope of engagement and the communities or community representatives involved, (2) demonstrate specific outreach to Indigenous communities, frontline communities, and communities with recognized environmental justice concerns in proximity to covered operations; for Indigenous peoples, outreach should be consistent with free, prior, and informed consent requirements or principles per the United Nations Declaration on the Rights of Indigenous Peoples⁴⁹ or International Finance Corporation Performance Standard 7⁵⁰; for other frontline and environmental-justice communities, outreach should demonstrate meaningful, good-faith consultation, and (3) disclose any formal environmental performance agreements, community benefit agreements, or other commitments made to local communities in connection with certified operations.

Explanation

Credible environmental stewardship includes community engagement alongside emissions performance, particularly near communities already carrying disproportionate air quality burdens. This criterion does not require full social

⁴⁹ United Nations. 2007. Declaration on the Rights of Indigenous People. [accessed 2026 Jul 18].
https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf

⁵⁰ International Finance Corporation. 2012. Performance Standard 7. IFC; [accessed 2026 Jun 18].
<https://www.ifc.org/en/insights-reports/2012/ifc-performance-standard-7>

impact assessments. The three options span a range: the 'Best' option requires documented engagement processes with specific attention to vulnerable communities and disclosure of any formal commitments; the 'Good' option asks for basic documentation of engagement activities; the 'Better' option sets a floor of disclosing formal complaints or legal challenges from within the last three years. Where covered operations are in the high-priority geographies under [Criterion 5.1](#), engagement matters more. These are the communities with the most at stake.

Principle 6: Infrastructure Durability

Actions should not incentivize additional fossil fuel production or distort energy markets.

Compliance with this principle is met through two criteria.

Criterion 6.1: No Net New Capacity Incentive

Actions must not provide revenue incentives that support net new fossil fuel production, processing, or transport capacity, except for equipment whose sole function is reducing emissions from existing operations.

Better

Where new infrastructure investment is required to achieve an intervention at an existing production or processing site, such investment is acceptable provided it is directly tied to a documented intervention outcome; does not increase production, processing, transport capacity, or absolute scope 1 emissions at the covered asset; and does not enable higher throughput elsewhere in the covered supply chain. This investment should be confined to equipment or actions whose function is to reduce emissions from existing operations, and the operator must demonstrate that it does not increase the site’s absolute emissions. The action procurement should document the specific abatement equipment and its emissions-reduction purpose.

Best

Actions shall only be issued for interventions associated with natural gas assets that were already operational or under binding construction contract prior to the date of the action verification or transaction. Eligibility should be determined by the earlier of three dates: the buyer's first binding purchase commitment, the

transaction agreement, or the verification request. That date should be documented. New abatement equipment at existing assets remains eligible provided it does not expand capacity. Additionally, actions should not be issued for assets where final investment decision or construction commitment follows the action transaction agreement. This is to prevent action revenue from forming part of the financial case for building new capacity.

Explanation

A fundamental risk of any market-based action for fossil fuel supply chains is that the revenue or price premium associated with certification could incentivize new production or infrastructure that would not otherwise have been economically viable. If differentiated gas premiums improve the economics of a new production facility, gathering system, or processing plant, the action intended to reduce emissions could paradoxically contribute to increased total emissions by expanding the fossil fuel supply base. For additional detail on these risks, see the Methane Finance Working Group (MFWG) Use of Proceeds guidance.⁵¹

The 'Best' option requires that actions only be issued for interventions at assets that were already operational or under a binding construction contract at the time of verification. This prevents certification from functioning as a financial input into new development decisions. However, this does exclude emissions-reducing investments at existing sites that genuinely require new equipment, beyond just the intervention equipment itself. The 'Better' option provides limited flexibility for cases where new capital investment is required to achieve an emissions reduction outcome at an existing site, provided that the investment is tied to a documented mitigation outcome and does not expand absolute emissions. Neither option prohibits operators from certifying existing assets or from investing in emissions reduction at facilities already in operation. The restriction is specifically targeted at preventing action revenue from subsidizing the construction of new fossil fuel production, processing, or transport capacity.

⁵¹ Methane Finance Working Group. 2025. Guidance for Including Methane Abatement in Oil and Gas Debt Structuring. [accessed 2026 Aug 13]. https://www.edf.org/sites/default/files/2025-06/Guidance%20for%20Including%20Methane%20Abatement%20in%20Oil%20and%20Gas%20Debt%20Structuring_0.pdf

Criterion 6.2: Duration

Procurement arrangements for actions should be structured so that their duration does not disadvantage any party’s ability to seek fundamentally lower- or zero-carbon energy alternatives.

Better

For buyers that engage in action transaction agreements that do not have a duration cap, the agreement must include transparency and disclosure requirements regarding the buyer’s climate goals and targets. At a minimum, the buyer must disclose the duration of the arrangement and explain how it aligns with the buyer’s stated climate goals and targets, so that uncapped commitment remains transparent. The buyer must also disclose whether and when it intends to review the ongoing need for the arrangement in light of evolving lower- or zero-carbon alternatives.

Best

Action transaction agreements shall not extend beyond the shorter of five years or a buyer’s next climate transition plan review. These agreements shall be situated within the buyer’s documented transition plan with a defined review clause and an explicit exit provision. The review clause should specify the conditions and cadence of review. The exit provision should allow the buyer to wind down the action transaction arrangement if the buyer’s transition plan changes to no longer accommodate this type of transaction. Situating the arrangement within the buyer’s transition plan ensures that the action transaction is framed to align with the buyer’s decarbonization timeline.

Explanation

A long-dated procurement commitment can bind a buyer to differentiated gas well past the point at which other lower-emissions alternatives become available. This can generate contractual inertia similar to the inertia that physical infrastructure creates. This concern is sharpened by the trajectory of gas demands in net-zero scenarios,

where global gas declines over the same period of time that a contract may run.⁵² A longer commitment risks locking a buyer into a fuel that is expected to shrink in use over time, and into spending that could be allocated elsewhere.

These options offer flexibility in exchange for stronger safeguards. The 'Best' option lists a discrete duration ceiling of five years, along with structural protections such as the agreement being situated in a buyer's transition plan and requiring review-and-exit provisions. The 'Better' option addresses uncapped arrangements by requiring transparency about how a commitment aligns with the buyer's overarching climate goals and targets. Across all options, the consistent principle is that the procurement strategy should support, not undermine, the buyer's ability to transition to zero-carbon energy.

References Cited

Alvarez RA, Zavala-Araiza D, Lyon DR, et al. 2018. Assessment of methane emissions from the U.S. oil and gas supply chain. *Science*. 2018;361(6398):186-188. <https://doi.org/10.1126/science.aar7204>

Buonocore JJ, et al. 2023. Air pollution and health impacts of oil and gas production in the United States. *Environmental Research: Health*. 1(2):021006. <https://iopscience.iop.org/article/10.1088/2752-5309/acc886>

Environmental Defense Fund. n.d. Measuring methane: a groundbreaking effort to quantify methane emissions from the oil and gas industry. [accessed 2026 Jun 17]. <https://www.edf.org/sites/default/files/EDF-Methane-Science-Brochure.pdf>

Equitable Origin. 2022. EO100 technical supplements: natural gas production, gathering/boosting and processing, and transmission and storage. [accessed 2026 Jun 17]. <https://www.equitableorigin.org/eo100-portal>

Equitable Origin. 2025. EO100 standard for responsible energy development. [accessed 2026 Jun 17]. <https://www.equitableorigin.org/certification>

Equitable Origin. 2026. Certification. [accessed 2026 Jun 16]. <https://www.equitableorigin.org/certification>

⁵² International Energy Agency. 2023. The oil and gas industry in net zero transitions. [accessed 2026 Jun 17]. <https://www.iea.org/reports/the-oil-and-gas-industry-in-net-zero-transitions>

- European Parliament, Council of the European Union. 2024. Regulation (EU) 2024/1787 of 13 June 2024 on the reduction of methane emissions in the energy sector and amending Regulation (EU) 2019/942. Official Journal of the EU. OJ L, 2024/1787, 15.7.2024. [accessed 2026 Jun 17].
<https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng>
- GTI Energy. 2023. Updated Veritas methane measurement and verification protocols (Version 2). [accessed 2026 Jun 17].
<https://www.gti.energy/updated-veritas-methane-measurement-and-verification-protocols-to-help-reduce-emissions/>
- GTI Energy. 2023. Veritas: open-source protocols to accelerate methane emissions reductions. [accessed 2026 Jun 17]. <https://www.gti.energy/veritas-open-source-protocols-to-accelerate-methane-emissions-reductions/>
- International Energy Agency. 2023. The oil and gas industry in net zero transitions. [accessed 2026 Jun 17].
<https://www.iea.org/reports/the-oil-and-gas-industry-in-net-zero-transitions>
- International Energy Agency. 2025. Prospects for Natural Gas Certification. [accessed 2026 Jun 17].
<https://iea.blob.core.windows.net/assets/1f42328c-93da-4725-91e9-cbacb68453c2/ProspectsforNaturalGasCertification.pdf>
- International Finance Corporation. 2012. Performance Standard 7. IFC; [accessed 2026 June 18].
<https://www.ifc.org/en/insights-reports/2012/ifc-performance-standard-7>
- Methane Finance Working Group. 2025. Guidance for Including Methane Abatement in Oil and Gas Debt Structuring. [accessed 2026 Aug 13].
https://www.edf.org/sites/default/files/2025-06/Guidance%20for%20Including%20Methane%20Abatement%20in%20Oil%20and%20Gas%20Debt%20Structuring_0.pdf
- Michanowicz DR, et al. 2021 Oct 6. Methane and Health-Damaging Air Pollutants From the Oil and Gas Sector: Bridging 10 Years of Scientific Understanding. Physicians, Scientists, and Engineers for Healthy Energy; [accessed 2026 Jun 18].
https://www.psehealthyenergy.org/wp-content/uploads/2022/07/Full-Report_Bridging-10-Years-of-Scientific-Understanding.pdf

- MiQ. 2024. Accredited Auditors. [accessed 2026 Jun 17], <https://miq.org/auditors/>
- MiQ. 2024. MiQ Supply Chain Protocol. [accessed 2026 Jun 18].
<https://miq.org/technical-information/supply-chain-protocol/>
- MiQ. 2025. MiQ enters partnership with Japan Ministry. [accessed 2026 Jun 16].
<https://miq.org/miq-enters-partnership-with-japan-ministry/>
- MiQ. 2026. MiQ. [accessed 2026 Jun 16]. <https://miq.org/>
- Oil and Gas Climate Initiative. 2026. OGCI's methane intensity target. [accessed 2026 Jun 17].
<https://www.ogci.com/methane-emissions/methane-intensity-target/>
- Omara M, Himmelberger A, MacKay K, Williams JP, Benmergui J, Sargent M, Wofsy SC, Gautam R. 2024. Constructing a measurement-based spatially explicit inventory of US oil and gas methane emissions (2021). Earth Syst Sci Data. 2024;16(9):3973-3991. <https://doi.org/10.5194/essd-16-3973-2024>
- One Future. 2026. 2026 One Future MACC Study. [accessed 2026 Jun 16].
<https://onefuture.us/press/2026-one-future-macc-study/>
- Oxford Institute for Energy Studies. 2026. EU Methane Emissions Regulation: Implications for Natural Gas Certification and Supply Chains (NG 205). [accessed 2026 Jun 16].
<https://www.oxfordenergy.org/wpcms/wp-content/uploads/2026/06/NG-205-EU-Methane-Emissions.pdf>
- Public Environmental Data Partners. 2025. EPA EJScreen (version 2.3, reconstructed). [accessed 2026 Jun 17].
<https://screening-tools.com/epa-ejscreen>
- Stockman L, Rowell A, Trout K, Eisenfeld J, Raynes D. 2023 Apr 17. Certified disaster: how Project Canary and gas certification are misleading markets and governments. Earthworks, Oil Change International; [accessed 2026 Jun 18]. <https://priceofoil.org/2023/04/17/certified-disaster-report/>
- The MiQ standard. 2024. MiQ Technical Standard: MiQ. [accessed 2026 Jun 17].
<https://miq.org/the-technical-standard/>

- United Nations. 2006. Declaration on the Rights on Indigenous People. [accessed 2026 Jul 18].
https://www.un.org/development/desa/indigenouspeoples/wp-content/uploads/sites/19/2018/11/UNDRIP_E_web.pdf
- United Nations Environment Programme. 2020. Oil and Gas Methane Partnership 2.0. Nairobi: UNEP; [accessed 2026 Jun 17]. <https://www.ogmpartnership.org/>
- United Nations Environment Programme. 2023. OGMP 2.0 reporting framework. [accessed 2026 Jun 17].
https://www.ogmpartnership.org/sites/default/files/documents/2025-04/OGMP_20_Reporting_Framework.pdf
- United Nations Environment Programme. 2026. OGMP 2.0 on Track to Deliver Measurement-Based Methane Emissions Reporting for One-Third of Global Oil and Gas Supply by 2030. OGMP 2.0 Level 5 Assessment. [accessed 2026 Jun 18].
<https://www.ogmpartnership.org/sites/default/files/resources/2026-03/OGMP%202.0%20Level%205%20Assessment.pdf>
- United States Environmental Protection Agency. 1995. AP-42: compilation of air pollutant emission factors. Volume I, Chapter 5: petroleum industry. [accessed 2026 Jun 17].
<https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-fifth-edition-volume-i-chapter-5-petroleum-1>
- United States Environmental Protection Agency. 2022. 2020 AirToxScreen assessment results. [accessed 2026 Jun 18] <https://www.epa.gov/AirToxScreen/2020-airtoxscreen-assessment-results>
- United States Environmental Protection Agency. 2022. AirToxScreen frequent questions. [accessed 2026 Jun 18].
<https://www.epa.gov/AirToxScreen/airtoxscreen-frequent-questions>
- United States Environmental Protection Agency. 2025. Reconsideration of the Greenhouse Gas Reporting Program; proposed rule. Federal Register. Docket EPA-HQ-OAR-2025-0186. [accessed 2026 Jun 17].
<https://www.federalregister.gov/documents/2025/09/16/2025-17923/reconsideration-of-the-greenhouse-gas-reporting-program>

United States Environmental Protection Agency. 2026. BenMAP: environmental benefits mapping and analysis program. [accessed 2026 Jun 18]. <https://www.epa.gov/benmap>

United States Environmental Protection Agency. 2026. CO-Benefits Risk Assessment (COBRA) health impacts screening and mapping tool. [accessed 2026 Jun 17]. <https://www.epa.gov/cobra>

United States Environmental Protection Agency. 2026. Greenhouse Gas Reporting Program, Subpart W: petroleum and natural gas systems. [accessed 2026 Jun 18].
<https://www.epa.gov/ghgreporting/subpart-w-petroleum-and-natural-gas-systems>

United States Environmental Protection Agency. 2026. Methane Emissions. [accessed 2026 Jun 16].
<https://www.epa.gov/ghgemissions/methane-emissions>

United States Environmental Protection Agency. 2026. Nonattainment areas for criteria pollutants (Green Book). [accessed 2026 Jun 18]. <https://www.epa.gov/green-book>

Veritas. 2026. Veritas Home. [accessed 2026 June 18]. <https://veritas.gti.energy>

Appendix A

Table A1 lists selected interventions across the upstream and midstream segments. This list is illustrative rather than exhaustive. These interventions are included to show the types of activity these criteria are designed to address, and they do not constitute a list of qualifying activities. Action integrity depends on project-specific factors, including the asset and its operating history, the applicable regulatory baseline, the measurement approach in place, and the local operating and community context. Each intervention must therefore be evaluated on a project-specific basis against the criteria in this report. This table should not be viewed as an exhaustive list of all potential interventions, but rather a summary of example interventions included in the literature reviewed. This information was compiled from the sources listed below the table.

Table A1. Example interventions

Category	Interventions	Notes
Pneumatic Devices	Replace gas-driven pneumatic controllers (with instrument air or electric solenoids & servos) and gas-driven pneumatic chemical injection and glycol pumps	Addresses known vented emissions; may require new onsite power
Electrification with grid or renewable electricity	Replace gas or diesel generators, pumps, compressors & drives with electric motor(s), fired heaters with electric heater	Addresses substantial combustion CO ₂ emissions and small quantities of uncombusted methane
Compressor rod packing and seals	Replace reciprocating compressor rod packing systems; retrofit wet seals to dry seals; retrofit wet seals with degassing recovery systems; capture and recompress dry seal vented gas and other compressor process vented gas	Addresses known vented emissions; packing degrades over time; replacement interval drives abatement potential
Vapor recovery and flare routing	Install vapor recovery units; reroute tank vents to flare; reroute dehydrator vents to flare	Addresses known vented emissions; converts methane to CO ₂ ; net benefit depends on flare efficiency/effectiveness
Tank management	Inspect and repair tank hatches and pressure relief valves	Faulty/failed hatches and valves are identified as the root cause of intermittent super-emitter events.
Glycol dehydrators	Optimize glycol dehydrator operation and sizing	Applies only to sites that are non-optimized

Category	Interventions	Notes
Acid gas removal CCS	Upgrade acid gas removal systems; CO ₂ capture on acid gas removal systems	Addresses known vented emissions; especially substantial GHG abatement opportunity in fields with high CO ₂ concentration in produced gas
Lift and liquids unloading	Install plunger lift systems in gas wells; mechanical pumping for liquids unloading	Addresses episodic venting associated with liquids unloading during well clean-ups
Well completions	Green well completions	Achieves near total capture during fracturing and well completion
Flare improvements	Implement portable flaring during completions & workovers; install electric flare ignition devices; install automated air/fuel control on flares	Addresses episodic venting, unlit or malfunctioning flares, and minimizes incomplete combustion at flares
Blowdown management	Capture gas during compressor blowdown; pump down pipeline before maintenance; implement sleeve repair instead of pipeline replacement; redesign blowdown systems and alter emergency shutdown practices	Addresses known episodic venting during compressor shutdowns, pipeline maintenance, etc.
Leak Detection and Repair (LDAR)	Continuous, monthly, quarterly, or annual monitoring and inspection coupled to responsive repair capability	Higher frequency inspections result in greater estimated emissions reduction
Marginal wells	Decommission orphaned, marginal, depleted, and/or high-leakage wells and assets	Addresses outsized leaks, but incurs substantial revenue impacts; decouples value chain association upon implementation

Table A1 Sources

Conway, TJ, Sasha Bylsma, Joseph Fallurin, Nils Jenson, Frances Reuland, and Suzanne Schadel. Accelerating Methane Reductions with Robust Independent Certification: An MiQ Case Study. RMI, 2023.
<https://rmi.org/resources/accelerating-methane-reductions-with-robust-independent-certification/>.

ICF. Marginal Abatement Cost for Methane Emissions Reductions among ONE Future Members in the US Natural Gas Supply Chain. ICF, 2026.
<https://onefuture.us/wp-content/uploads/2026/04/ONE-Future-Report-Release-Apr-14-2026.pdf>.

International Energy Agency. Global Methane Tracker 2026. International Energy Agency, 2026.
<https://www.iea.org/reports/global-methane-tracker-2026>.

- Methane Finance Working Group. Guidance for Including Methane Abatement in Oil and Gas Debt Structuring. Environmental Defense Fund, 2025.
https://www.edf.org/sites/default/files/2025-06/Guidance%20for%20Including%20Methane%20Abatement%20in%20Oil%20and%20Gas%20Debt%20Structuring_0.pdf.
- MiQ. “The MiQ Standard.” MiQ, 2024. <https://miq.org/the-technical-standard/>.
- Palacios, Luisa, Gautam Jain, and Preetha Jenarthan. A Roadmap to Catalyze Methane Abatement in the Oil and Gas Sector Using Debt Financing. Center on Global Energy Policy, Columbia University School of International and Public Affairs, 2025.
<https://www.energypolicy.columbia.edu/publications/a-roadmap-to-catalyze-methane-abatement-in-the-oil-and-gas-sector-using-debt-financing/>.
- Regulation (EU) 2024/1787 of the European Parliament and of the Council of 13 June 2024 on the Reduction of Methane Emissions in the Energy Sector and Amending Regulation (EU) 2019/942, Official Journal of the European Union (2024). <https://eur-lex.europa.eu/eli/reg/2024/1787/oj/eng>.
- Technical Correction; Extension of Deadlines: Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review Interim Final Rule; National Emission Standards for Hazardous Air Pollutants for Integrated Iron and Steel Manufacturing Facilities; National Emission Standards for Hazardous Air Pollutants for Coke Ovens: Pushing, Quenching, and Battery Stacks, and Coke Oven Batteries, 90 Federal Register 40975 (2025).
<https://www.federalregister.gov/documents/2025/08/22/2025-16152/technical-correction-extension-of-deadlines-standards-of-performance-for-new-reconstructed-and>.
- United Nations Environment Programme. “The Oil & Gas Methane Partnership 2.0 (OGMP 2.0).” United Nations Environment Programme. Accessed September 3, 2026. <https://www.ogmpartnership.org/>.

Acknowledgements

Relae and Green Strategies independently conducted the analysis and are solely responsible for the findings and conclusions presented in this report. We would like to acknowledge members of the Beyond Alliance for their support. Additionally, Relae and Green Strategies would like to thank RMI and WSP for their collaboration and consultation in developing this document. The views and conclusions expressed in this report are those of Green Strategies and Relae and do not necessarily reflect the views of any other participating organization. All errors and omissions remain the sole responsibility of Relae and Green Strategies.

To request information or give feedback for future versions of this report, please email Relae at: upstream.gas.consultation@relae.co.

The Relae team that developed this report comprised: A.J. Simon; Jordan Alford; Greg Cooney; Joe Willenborg; Daniel Garcia, PhD; Eva Guadamillas; Natalie Davis; Adrianna Sutton

We thank Green Strategies for their deep collaboration on this guidance: Roger Ballentine; Patrick Falwell; Sabrina Matura

About Relae

Relae is the trusted advisor in energy and climate, delivering scientifically rigorous, technically advanced, and commercially grounded solutions. Our scientists, engineers, and policy experts pair systems-level knowledge with project-level understanding to help clients achieve their energy and climate goals. Founded in 2020 as Carbon Direct, Relae has supported over 150 companies, including Microsoft, Mitsubishi, and JPMorganChase, in navigating today's most pressing challenges across energy systems, greenhouse gas emissions accounting, carbon markets, climate policy, natural capital, environmental markets, and emerging technologies. To learn more, visit www.relae.co.

About Green Strategies

Green Strategies is one of the nation's oldest and most trusted boutique energy, climate, and sustainability consulting firms. Founded in 2001, Green Strategies has helped lead corporate clients -- from the Fortune #1 to mid-market companies and investors -- through the changing landscape of energy, climate and sustainability. Internationally recognized as experts in energy and environmental markets, value-creating corporate sustainability

strategies, clean energy and greenhouse gas accounting, Green Strategies’ core theory of change is that while, historically, markets and profit-seeking have contributed to today’s environmental challenges, those same powerful forces can be re-directed to now solve those challenges while creating value for companies.

Disclaimer

Relae does not provide tax, legal, accounting, or investment advice. This material is prepared for informational purposes only, and its distribution does not constitute legal, tax, accounting, investment, or other professional advice. No warranty or representation, express or implied, is made by Relae, and Relae accepts no liability regarding the information or data included in this document. The views expressed are opinion only, and recipients should consult their professional advisors before acting on any information contained herein. This white paper presents Relae's assessment and opinions based on the information available as of the publication date. The subject matter may change over time, and future developments may lead to different conclusions. Comparisons, evaluations, or observations included here are not intended to disparage any approach, organization, or commercial entity. The purpose of this document is to contribute to informed discussion and improvement within the relevant field.

Relae may use AI-enabled tools to assist with research, data analysis, translation, and drafting. Such tools are used to support personnel and are not intended to replace professional judgment. Relae remains responsible for the final work product.

Green Strategies does not provide legal, tax, or investment advisory services and its work products should not be construed as doing so. The information and analysis provided here was developed based on credible information and materials available as of its publication date. Green Strategies makes no legal express or implied warranty as part of this work and accepts no liability for use of the information provided.