

MAY
2021

An Overview of

Voluntary Emissions Reduction Initiatives

for Responsibly Sourced Oil and Gas

An Overview of

Voluntary Emissions Reduction Initiatives

for Responsibly Sourced Oil and Gas

Authors

Chandler Billingham
Methane Analyst
Highwood Emissions Management

Dr. Thomas Fox
President
Highwood Emissions Management

Jessica Shumlich
Chief Executive Officer
Highwood Emissions Management

Reviewers

Carolyn Pfau
Senior Environmental Engineer
ARC Resources

Dr. Erin Tullos
Sr. Director, Gas Transition Solutions
Gas Technology Institute

Dr. Robert Kleinberg
Sr. Research Scholar, Columbia University
Sr. Fellow, Boston University

Tisha Schuller
Founding Principal
Adamantine Energy

Nandha Visvanathan
Independent Reviewer

Anonymous Reviewer
Anonymous U.S. Midstream Company



We are emissions reduction experts. Working with industry, government, and innovators around the world, we leverage data, analytics, knowledge, and experience to optimize emissions management. Our mission is to collaborate, innovate, and educate our way to a world with effective and affordable emissions management solutions.

This report was created and is maintained by Highwood Emissions Management Inc (Highwood). It is designed to serve as a free educational resource for those interested. Highwood has made every attempt to ensure the accuracy and completeness of the information presented in this report but provides no guarantee and will not be held responsible for any errors or omissions. This report is intended for learning purposes only. Any entity that chooses to use this report to inform or guide decision making assumes full responsibility for any outcomes that arise from their decisions. The terms and definitions used in this report are not necessarily the same as terms and definitions used in various statutes, rules, codes or other legal documents. Users and readers of this report should refer to relevant legal sources or consult their own legal counsel for explanations as to how the terms and definitions used in this document may differ from the legal terms and definitions used in their particular areas of operation.

Publicly available information was used to create this report. Each organization was contacted but several did not respond. If you discover any errors, omissions, or inaccuracies in this report or have any suggestions to improve it, please let us know by contacting us at info@highwoodemissions.com.

Table of Contents

Foreward	IV
Executive Summary	VI
Introduction	1
Summary of Results	3
Tables	5
Key Findings	9
Key Knowledge Gaps	11
Moving Forward	13
Glossary	14

Voluntary Initiatives

Certifications

Equitable Origin 100™ (EO100™) Standard	17
ISO 14001:2015	18
MiQ Standard	19
Trustwell Responsible Gas	20

Commitments

EPA Methane Challenge Program	22
Global Methane Alliance (GMA)	23
Global Methane Challenge (GMI)	24
Methane Guiding Principles	25
Oil and Gas Climate Initiative (OGCI)	26
Our Nation's Energy Future Coalition (ONE Future)	27
Science Based Targets Initiative (SBTi)	28
The Environmental Partnership	29

Guidelines

Natural Gas Sustainability Initiative (NGSI)	31
Oil and Gas Methane Partnership 2.0 (OGMP 2.0)	32
Sector Standards for Oil and Gas	33
Task Force for Climate-related Financial Disclosure (TCFD)	34

ESG Ratings

Climate Change Score	36
----------------------	----



Foreward

For energy companies contemplating an emissions strategy, the notion itself can be daunting – and so too is the best way of communicating it through voluntary reporting and disclosure.



Bill Whitelaw, Managing Director
geoLOGIC Systems & JWN Energy

Indeed, while “reporting” is one dimension of emissions management; *strategic storytelling through voluntary reporting* is another important consideration. Such storytelling, engineered and imagined within a reporting framework, has the potential to synchronize effectively with stakeholders eager to learn more about emissions complexity.

An informed public is critical to how our sector collaboratively navigates its emissions future.

The voluntary reporting initiatives through which companies can report emissions strategies present a bewildering array of options – each with its own context and utility. There is no one universal single source of truth in the voluntary reporting world; rather, it is a variation of the four “Rs” of nutrient management in agriculture – itself connected to emissions thinking – that calls for the right nutrient source, at the right rate, at the right time for the right place.


The voluntary reporting framework selection best for a particular company must meet similar contextual criteria: the right framework, with the right tools, at the right time, for the right return.

That is why this special report from Highwood Emissions Management is a must-read. While its focus is on making sense of the myriad voluntary initiative choices available to emitters – including knowledge gap assessment – it also provides a highly textured sense of why there are so many frameworks shaping the emissions sphere.

Despite that diversity, the various frameworks all have one thing binding them: properly used, they have the potential to make for impactful storytelling.

Highwood has collected, collated, and classified all the major voluntary frameworks into four categories: certifications, commitments, guidelines and ESG ratings.





And because the Highwood team works at the intersection of industrial, innovation, and research ecosystems – the transdisciplinary sweet spot where the best insights are gleaned – there is something for virtually every emitter in this report

But aggregation is in many ways the “easy” part. The real magic is the right subject matter expertise – and as important, the right *subject matter perspective* – that provides the highly nuanced interpretation that helps guide good decision quality. And good decision quality will also illuminate choices when it comes to all-important storytelling, because companies *with the courage to report* should also enjoy the returns that ethically driven storytelling can generate.

If all energy companies utilizing a voluntary reporting framework unite behind the storytelling and communication potential such tools offer, the cumulative impact in shaping public knowledge and opinion could make for an energy system emissions future free of divisive polarization.

Bill Whitelaw, Managing Director
geoLOGIC Systems & JWN Energy



Executive Summary

The global energy industry is on the precipice of a monumental shift



As efforts to mitigate the impacts of climate change intensify, greenhouse gas (GHG) emissions – and their sources – are facing increased scrutiny from governments and the public. Energy companies are navigating unfamiliar risks, opportunities, and challenges brought on by evolving environmental regulations, emerging carbon markets, and a growing end user demand for sustainable energy. The transition is underway and unavoidable. How should energy companies confront it? Better yet, how might they take advantage?

There is no roadmap for oil and natural gas (O&G) companies seeking to benefit from the transition towards lower GHG emissions.

As some O&G companies invest heavily in emissions reductions, others are biding their time and waiting for a

stronger impetus to act. The companies that are leading by example are charting new waters and should be rewarded for their environmental performance – but first they must convey their achievements to stakeholders through reputable channels. Understanding how to effectively communicate emissions reduction targets, activities, and performance – and their relevance – remains elusive. A growing number of voluntary initiatives may provide an answer.

A voluntary emissions reductions initiative is a coordinated effort managed by an administering organization that enables participants to take standardized voluntary steps towards targeting, achieving, and/or taking credit for emissions reductions. Over the past decade, the number and diversity of voluntary initiatives available to the O&G industry has risen dramatically. Yet these developments have left energy companies, end users, and investors with as many questions as answers. A better understanding of how these initiatives compare – especially in terms of their costs and anticipated benefits – is needed to guide participation.



In this report, Highwood Emissions Management presents the first ever systematic comparison and synthesis of voluntary emissions reduction initiatives available to the O&G industry.

Through our research, we have identified 20 voluntary initiatives related to emissions reductions applicable to the O&G industry. Each of the 20 initiatives was evaluated across 12 criteria, including scope of emissions, performance metrics, accountability, coverage, participation, eligibility, and funding model.

Our analysis identified 4 distinct categories of voluntary initiatives: certifications, commitments, guidelines, and ESG ratings.
(refer to our Glossary for definitions)

In general, our synthesis has revealed that the majority of initiatives are non-prescriptive, allowing flexibility in a company's approach to GHG emissions quantification and reduction. We also find opportunity for more accountability, as most initiatives do not enforce independent compliance auditing procedures.

We identify 7 key findings that will help industry, government, investors, and other stakeholders as they work to understand, regulate, participate in, and improve these programs.

Taken together these findings serve to better describe the landscape surrounding voluntary initiatives and shed light on the role these initiatives can play in helping O&G companies demonstrate their commitment to reducing GHG emissions.

Key Findings

1. Verification via independent auditing is the exception, not the norm
2. Voluntary initiatives tend to be broad in geographical and sectoral scope
3. Most initiatives are non-prescriptive in terms of technology use
4. Commitments are more common than certifications, guidelines, and ESG ratings
5. Participation is often limited to companies, excluding governments, coalitions, and other groups
6. Certification programs are new, limited in number, and have low participation
7. Full public disclosure of unaggregated data is never required

Alongside these 7 key findings, we identify 7 remaining knowledge gaps. In particular, this report reveals a need for improved quantification and communication of the costs and benefits of participation for different voluntary initiatives.

Taken together, the following knowledge gaps present industry, researchers, governments, and other stakeholders with opportunities to improve understanding, effectiveness, credibility, and uptake of voluntary initiatives.

Key Knowledge Gaps

1. What types of metrics and knowledge should be used when selecting voluntary initiatives?
2. How can the benefits of participation be clearly and objectively quantified?
3. What definitions and standards should be used for transparency and impartiality?
4. What is the long-term viability and purpose of different initiatives?
5. How can emissions measurement technologies be used to improve disclosure?
6. To what extent should voluntary initiatives be standardized and/or harmonized?
7. How can regulators and administering organizations collaborate and learn from one another?



We conclude with a **call to action** that will guide stakeholders as they move to address existing knowledge gaps, improve voluntary emissions reduction initiatives, and increase participation rates

Moving forward, we call on:

1. **The O&G industry** to embrace transparency and disclosure of measurement and reporting.
2. **Administering organizations** to improve collaboration and coordination towards harmonized reporting requirements.
3. **Administering organizations** to clearly quantify and communicate their value proposition to the O&G industry.
4. **Investors and end users** to establish and communicate the types of standards, metrics, and performance they would like to use to inform decision making.
5. **Researchers, innovators, and administering organizations** to improve understanding of how data diverse emissions measurement technologies can be leveraged as part of an integrated system of disclosure.
6. **All stakeholders**, to collaboratively build a roadmap that guides the selection process for O&G companies seeking to participate in these initiatives but unsure of where to start.



Jessica Shumlich
Jessica Shumlich, CEO
Highwood Emissions Management

Introduction



Around the world, governments, industry, and the public are coming to recognize an urgent need to address climate change. A global shift in priorities is beginning to fundamentally rewire the energy industry.

The oil and natural gas sector is becoming acutely aware of an impending energy transition – one where both investors and consumers reward companies that are willing to lead.

Energy companies that lag behind in Environment, Social, and Corporate Governance (ESG) performance are now seen as a liability – these companies will be exposed in the new economy.

Effectively managing greenhouse gas (GHG) emissions is a cornerstone of resilient corporate strategy. However, a growing performance gap exists between

energy companies that are taking the initiative to reduce their emissions and those that have yet to act. Mitigating GHG emissions is expensive – especially at a time of depressed oil prices and economic turmoil – and the benefits of doing so can be unclear.

How can oil and gas companies take credit for strong emissions reduction performance and monetize their efforts?

A voluntary emissions reduction initiative is a coordinated effort that enables participants to take standardized voluntary steps towards targeting, achieving, and/or taking credit for emissions reductions. As GHG reduction regulations become increasingly prevalent, coordinated voluntary initiatives are also arising that often go above and beyond regulatory requirements, enabling companies to showcase their commitment to a low carbon future. However, diverse voluntary initiatives exist, differing markedly in scope, mandate, participation, repute, and reward. How to navigate these opportunities and choose strategically among them remains unclear.

Highwood Emissions Management is pleased to present the first comprehensive effort to systematically compile and evaluate a broad range of voluntary emissions reduction initiatives for the oil and gas industry

We describe and compare 20 voluntary initiatives, introduce new concepts and categories, establish a glossary, and report on a range of important key findings, knowledge gaps, and recommendations. Our analysis seeks to include all voluntary initiatives for the oil and gas industry that relate to emissions management performance. Unintentional omissions are possible. Legal requirements and carbon markets are out of scope.

We anticipate that this report will contribute to growing efforts to enable the production and sale of responsibly sourced oil and natural gas.

Please reach out with your feedback, thoughts, or suggestions – we will listen earnestly as we continue to build and evaluate the systems that reward industry for strong emissions performance.



A stylized, handwritten signature in black ink, appearing to read 'Thomas Fox'.

Thomas Fox, President
Highwood Emissions Management

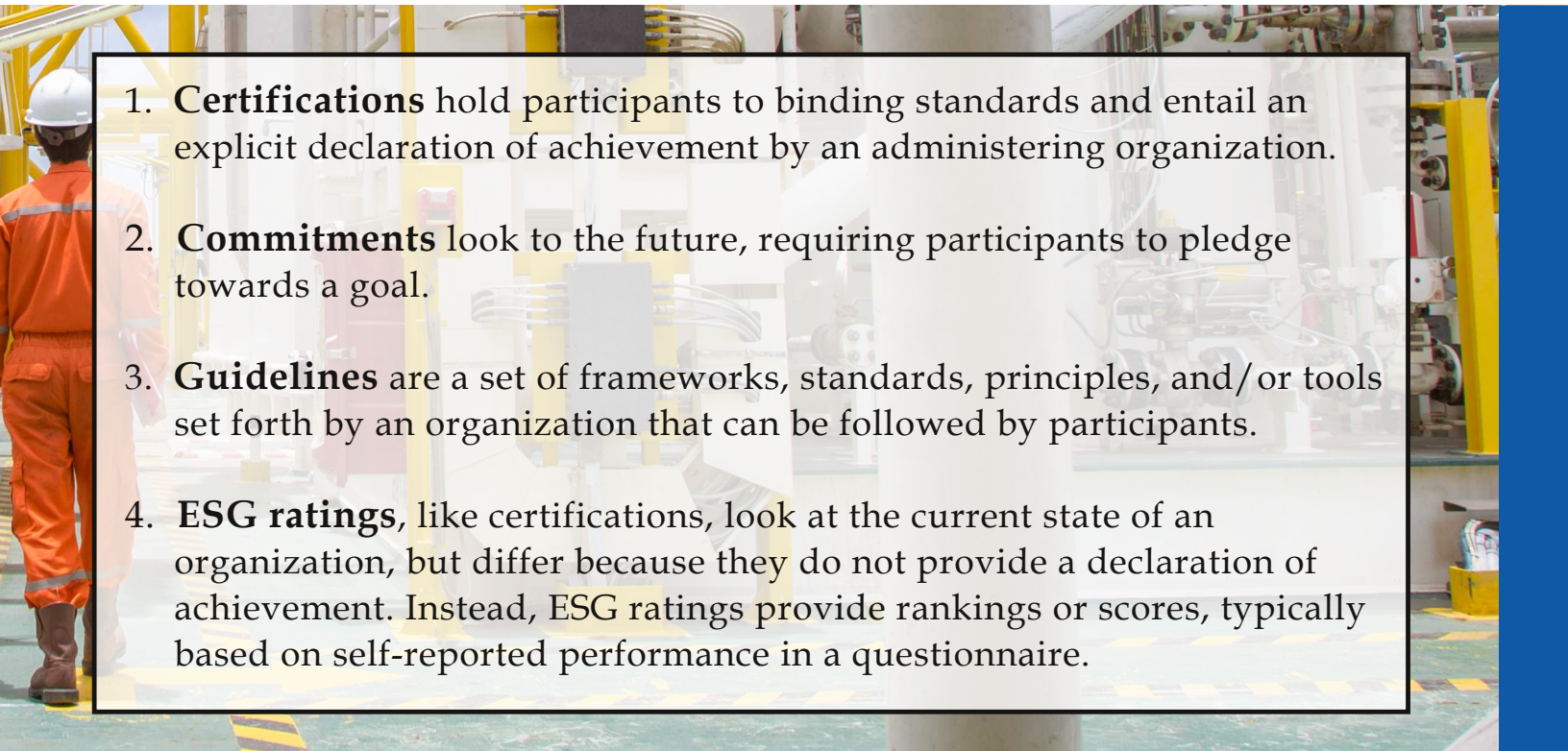


Summary of Results

Our comprehensive review and analysis revealed **20 distinct voluntary emission reduction initiatives** that are currently available to the O&G industry.

A broad overview of these initiatives is presented in a series of tables, followed by a set of detailed descriptions of each voluntary initiative. The tables and subsequent descriptions are categorized according to common sets of characteristics that emerged during our research.

Four non-exclusive categories of voluntary initiatives were identified:

- 
1. **Certifications** hold participants to binding standards and entail an explicit declaration of achievement by an administering organization.
 2. **Commitments** look to the future, requiring participants to pledge towards a goal.
 3. **Guidelines** are a set of frameworks, standards, principles, and/or tools set forth by an organization that can be followed by participants.
 4. **ESG ratings**, like certifications, look at the current state of an organization, but differ because they do not provide a declaration of achievement. Instead, ESG ratings provide rankings or scores, typically based on self-reported performance in a questionnaire.

Existing voluntary initiatives were found to differ markedly in how data are acquired, reported, and verified. To better communicate these differences, we developed a novel rating system comprised of **6 disclosure levels**.



Disclosure Levels

Level 1: No exchange of information from the participant to the administering organization

Level 2: Self-reporting without verification

Level 3: Verification of participant's self-reported data by an independent third party or the administering organization

Level 4: Verification using measurements performed by the administering organization

Level 5: Verification using measurements performed by an independent third party

Level 6: Detailed public disclosure of unaggregated, measured, and auditable emissions data

Disclosure levels were derived from shared themes encountered during our research and categorize initiatives based on reporting requirements and oversight. This system describes the degree to which initiatives purport to bind participants to performance and outcomes but makes no assumptions regarding the effectiveness of any given initiative. Level 6 exists as the highest plausible level of disclosure but is not used by any initiatives within this report.

Despite the different categories of voluntary initiatives and disclosure levels presented in this report, it is important to note that Highwood does not consider any one initiative to be “better” or “worse” than any other. Each type of initiative has a unique approach to engaging with industry and recognizing their efforts. Although highly rigorous initiatives set high standards,

they also present financial and logistical barriers to entry for companies that are not ready for that level of commitment. Initiatives with less stringent guidelines enable broader participation and may have an important role to play as stepping stones towards stronger actions.

Results are synthesized into a set of **7 key findings** to help diverse stakeholders understand, participate in, and improve upon voluntary emissions reduction initiatives. These are followed by a set of **7 key knowledge gaps** that were identified during our research to inform future research in this area. Building on these knowledge gaps, we provide **6 actionable steps** that will improve voluntary initiatives and increase participation. Finally, we present **a glossary of 20 terms** related to voluntary emissions reduction initiatives alongside proposed standardized definitions. The report ends with a detailed account of each of the voluntary initiatives researched.



Certifications

Initiative	Organization	Coverage	Inception	Supply Chain Target	Scope of Emissions	Elegibility	Participants
Equitable Origin 100™ Standard for Responsible Energy Development	Equitable Origin	Global	2012	Entire supply chain	Scope 1, 2 & 3	Sites	2
ISO 14001:2015	International Organization for Standardization	Global	2015	Entire supply chain	Scope 1, 2 & 3	Companies & organizations	300,000+*
MiQ Standard	MiQ Methane Intelligence	Global	2021	Entire supply chain	Scope 1	Companies	0
TrustWell Responsible Gas	International Environmental Standards	Global	2016	Entire supply chain	Scope 1 & 2	Companies	1**

* This is the total number of participants across all industries, not O&G exclusively

** There have been 9 companies certified but only one with the low-methane attribute



Commitments

Initiative	Organization	Coverage	Inception	Supply Chain Target	Scope of Emissions	Elegibility	Participants
EPA Methane Challenge Program	The Environmental Protection Agency (EPA)	U.S.	2016	Entire supply chain	Scope 1 & 2	U.S. companies	69
Global Methane Alliance (GMA)	Climate & Clean Air Coalition (CCAC)	Global	2019	Not specified	Not specified	Countries, financing institutions, international organizations & NGOs, & companies	2
Global Methane Challenge (GMI)	Global Methane Initiative	Global	2019	Entire supply chain	Scope 1, 2 & 3	Companies	37
Methane Guiding Principles	Methane Guiding Principles	Global	2017	Entire supply chain	Scope 1, 2 or 3	Companies & organizations	41*
Oil and Gas Climate Initiative (OGCI)	Oil and Gas Climate Initiative (OGCI)	Global	2014	Upstream	Scope 1 & 2	Companies	12
Our Nation's Energy Future Coalition (ONE Future)	ONE Future	U.S.	2014	Entire supply chain	Scope 1 & 2	U.S. companies	36
Science Based Targets Initiative (SBTi)	The UN Global Compact, World Resources Institute, World Wildlife Fund for Nature, & the CDP	Global	2015	Not specified	Scope 1 (current) Scope 2 (future)	Companies	1,199**
The Environmental Partnership	American Petroleum Intsitute (API)	U.S.	2017	Upstream & midstream	Not specified	U.S. companies	83

* Participants may either be classified as a signatory or a supporting organization

** 7 participants operate within the oil and gas sector



Guidelines

Initiative	Organization	Coverage	Inception	Supply Chain Target	Scope of Emissions	Elegibility	Participants
Natural Gas Sustainability Initiative (NGSI)	American Gas Association (AGA) & the Edison Electric Institute (EEI)	U.S.	2018	Entire supply chain	Scope 1, 2 & 3	Companies	Unknown
Oil and Gas Methane Partnership 2.0 (OGMP 2.0)	United Nations Environment Program (UNEP) & the Climate & Clean Air Coalition (CCAC)	Global	2020	Entire supply chain	Scope 1	Companies	66
Sector Standards for Oil and Gas	Global Reporting Initiative (GRI)	Global	2021 (pending)	Entire supply chain	Scope 1 & 2	Companies	0*
Task Force for Climate-related Financial Disclosure (TCFD)	The Financial Stability Board (FSB)	Global	2015	Entire supply chain	Scope 1, 2 & 3	Companies	1,500+**

* Sector Standards for Oil and Gas have not yet been released

** Not all participants operate within the oil and gas sector



ESG Ratings



Initiative*	Organization	Coverage	Inception	Supply Chain Target	Scope of Emissions	Elegibility	Participants
Climate Change Score	The Carbon Disclosure Project (CDP)	Global	2003	Entire supply chain	Scope 1, 2 & 3	Companies, organizations, cities & governments	9,800**
MSCI ESG Ratings	Morgan Stanley Capital International (MSCI)	Global	1999	Entire supply chain	Scope 1, 2 & 3	Companies	~8,500**
Sustainalytics ESG Risk Ratings	Sustainalytics	Global	1992	Entire supply chain	Scope 1, 2 & 3	Companies	102
S&P ESG Evaluation	Standard and Poor's (S&P)	Global	1999	Entire supply chain	Scope 1, 2 & 3	Companies & governments	180***

* A considerable number of ESG ratings agencies exist. We provide four examples of initiatives.

** Not all participants operate within the oil and gas sector

*** Participants classified under the 'energy' and 'gas' practices





Key Findings

The Highwood Emissions Management 2021 voluntary initiatives report for the oil and gas sector has revealed a number of important findings.

The key results, listed below, will guide industry, government, investors, and the organizations that administer voluntary initiatives as they work to understand, regulate, participate in, and improve upon these programs

1 Verification via independent auditing is the exception, not the norm

Only two initiatives – EO100 and MiQ – require the use of third-party auditors to verify participant activities and/or performance through independent on-site measurements. Although additional expense must be incurred to independently audit practices and validate reported data, doing so builds credibility and confidence in the initiative. In other industries (e.g., organic agriculture, fair trade), use of independent audits for certification programs is the norm.

2 Voluntary initiatives tend to be broad in geographical and sectoral scope

Most voluntary initiatives welcome participation from anywhere in the world and cover all stages of the O&G supply chain, including production, gathering, processing, transmission, storage, and distribution. Adopting a broad scope is sensible as it enables widespread participation, diverse membership, and standardization of emissions reduction efforts across dissimilar jurisdictions and sectors.

3 Most initiatives are non-prescriptive in terms of technology use

Most initiatives do not require the use of specific technologies for measurement (e.g., optical gas imaging for methane leak detection and repair) or abatement (e.g., replacing gas-driven pneumatic equipment with electric or air-powered instruments). This gives companies the freedom to reduce emissions in the ways that make the most sense to them, but could make verification more challenging.



4 Commitments are more common than certifications, guidelines, and ESG ratings

Of the 20 voluntary initiatives analyzed in this study, 8 (50%) are commitments. Commitments also have relatively strong participation numbers, with a median of 39 participants. Commitments may be popular because they balance ease of participation with accountability.

5 Participation is often limited to companies

All of the voluntary initiatives considered in this report allow participation by for-profit O&G companies. However, very few enable participation by governments, industry groups, or other organizations. Doing so could increase uptake. For example, compliant companies in jurisdictions with strong emissions regulations (e.g., Colorado) may automatically achieve requirements set forth by select voluntary initiatives. Rather than require an application from each company, it may be more efficient to certify the entire state, or at least streamline the process in some way.

6 Certification programs are new, limited in number, and have low participation

Of the four certification programs, two have originated since 2020 and two have certified one or fewer O&G companies. The low participation observed is not necessarily a product of these initiatives being new; the Equitable Origin 100 certification has existed since 2012 and has only certified 2 sites. Anecdotal evidence suggests that interest in certifications is growing as stakeholders begin to scrutinize the rigor of voluntary initiatives and demand independent verification.

7 Full public disclosure is never required

Not one of the 20 voluntary initiatives requires comprehensive and unaggregated public disclosure of measured emissions data (disclosure level 6). While mandating full public disclosure might understandably discourage participation by introducing real or perceived risks, such an approach can be regarded as the highest degree of transparency. Any voluntary initiative or company that might one day choose this path would be setting the highest of standards.





Key Knowledge Gaps

The Highwood Emissions Management 2021 voluntary initiatives report for the oil and gas sector has revealed a number of important knowledge gaps.

These unknowns, listed below, present industry, researchers, governments, and other stakeholders with opportunities to improve understanding of voluntary initiatives to improve their effectiveness, credibility, and uptake.

1 Voluntary initiative selection

Given the number and diversity of voluntary initiatives, prospective participants must decide which ones to adopt. However, it remains unclear how to navigate the decision-making process of which voluntary initiative(s) to pursue and which ones to avoid.

2 Quantifying benefits of participation

Most voluntary initiatives claim to “boost investor confidence” but do not provide details. An understanding of the precise value that these programs bring to participants, relative to their costs, would help to inform the decision-making process described above. To date, a robust comparison of the benefits of participation has not been performed. Furthermore, how to compare value remains elusive, as investor confidence and other benefits are difficult to measure. Quantifying benefits could be easier for voluntary initiatives that allow participants to sell differentiated products at a premium.

3 Defining transparency and impartiality

Transparency, impartiality, disclosure, and independence are central themes for many of these initiatives. These concepts are difficult to define, measure, and report, but have important implications for understanding the credibility of different initiatives and to communicate the value they bring.



4 Long-term viability and purpose of different initiatives

What happens once targets are met? Does a company progress to the next, more stringent voluntary initiative? Or does the initiative raise the bar for its participants? Significant gaps in emissions performance exist among different companies. Could future regulations or evolving ESG standards equalize the playing field and eliminate the need for these initiatives?



5 The role of technology and measurement

Voluntary initiatives rely on diverse technologies and methods to measure emissions. Comparing initiatives and understanding their impact is difficult without an understanding of the efficacy of different approaches, the limitations of the data they generate, and how conclusions should be drawn. Voluntary initiatives also present an opportunity to encourage technology performance, data, reporting, and transparency to improve capacity to meet evolving standards.

6 The role of standardization

By enabling global participation, voluntary initiatives offer a unique opportunity to create a level playing field for similar companies around the world. However, the ideal amount of standardization – both within and among initiatives – remains unclear. While standards establish a foundation for comparison, they may also inhibit innovation and the flexibility for companies to pursue the most sensible emissions management practices.

7 Voluntary initiatives as advanced regulations

Voluntary initiatives are often “a step ahead” of regulations because their purpose is to allow participants to take credit for going “above and beyond”. Can learnings be shared among policy makers and the organizations that administer voluntary initiatives? Can learnings be shared between compliance enforcement and independent auditing requirements?



Moving Forward

Addressing the knowledge gaps identified in this report will help to empower O&G companies to accelerate emissions reduction activities and to take credit for their progress.

Highwood presents the voluntary initiatives community – including the O&G industry, administering organizations, investors, and regulators – with the following call to action.

1. Embrace transparency and disclosure

The O&G industry should embrace transparency and accountability in the disclosure of GHG emissions measurements. Voluntary initiatives should encourage and enable this shift.

2. Harmonization of data collection and reporting

Administering organizations should work collaboratively to identify opportunities for standardizing data collection and reporting.

3. Quantify and communicate the value proposition

Administering organizations should work to clearly communicate their value proposition to the O&G industry, including the costs of participation and the returns that can be expected.

4. Understand investor and end user demands

Investors and end users should establish and communicate to administering organizations the standards, metrics, and performance they would like to use to inform decision making.

5. Understand measurement and technology

Measurement technologies are evolving rapidly and should have more clearly defined roles in voluntary initiatives. Understanding how diverse types of measurement data can be verified and used to improve the accuracy of disclosure will be a significant challenge.

6. Build a collaborative roadmap

A roadmap is needed to guide eligibility and suitability of different initiatives. The roadmap should be designed collaboratively and include clear decision points and objective criteria to help guide the O&G industry towards the initiatives best suited for their specific goals, constraints, and progress in their emissions management journey.



Glossary

Administering organization	The entity responsible for running a voluntary initiative and managing participation.
Aggregated data	Emissions data that has been collected from multiple sources and summarized, usually for the purpose of public reporting or statistical analysis.
Audit	The verification of a participant's data, practices, or performance by an entity other than the participant in question.
Auditable	Designed to enable verification of a participant's progress towards a goal or adherence to a voluntary initiative by an administering organization or independent third party.
Binding	A voluntary initiative that incorporates compliance measures.
Carbon market	A greenhouse gas trading system that enables monetisation of emissions reductions and/or strong performance relative to other market participants.
Certification	An initiative that holds participants to binding standards that may include emissions reduction performance targets, use of specific technologies, and/or adoption of methodologies. Certifications entail an explicit declaration of achievement from the administering organization to the participant.
Commitment	An initiative requiring participants to pledge efforts towards a goal that is decided upon by a governing body or collectively by participants within a group. Commitments are typically auditable, binding, and focus on achieving future goals.
Differentiated product	A product (e.g., natural gas) that is distinguished from others on the basis of some attribute (e.g., emissions intensity), making it more attractive to a particular market.
Disclosure	The act of releasing information to a target audience.
Disclosure level	A novel measure of disclosure for voluntary initiatives developed for this report. We define six disclosure levels: Level 1: No exchange of information from the participant to the administering organization



- Level 2: Self-reporting without verification
- Level 3: Verification of participant's self-reported data by an independent third party or the administering organization
- Level 4: Verification using measurements performed by the administering organization
- Level 5: Verification using measurements performed by an independent third party
- Level 6: Detailed public disclosure of unaggregated, measured, and auditable emissions data

ESG rating	An evaluation of a company based on an assessment of their quality, standards, and performance on environmental, social, and governance (ESG) issues. Compiled ESG data is used to generate information products that compare different companies on the basis of their exposure to – and ability to manage – ESG risks.
ESG rating agency	An organization that develops and disseminates ESG ratings. Common ESG ratings agencies include Bloomberg, MSCI, RepRisk, Sustainalytics, and Thomson Reuters.
Guidelines	A set of frameworks, standards, principles, and/or tools designed to assist participants in meeting their goals and reporting on their progress.
Participant	Any company, organization, institution, regulatory body, or other entity that participates in a voluntary initiative.
Partnership	When two or more organizations join together to administer a voluntary initiative. For example, the Rocky Mountain Institute and SYSTEMIQ joined to deliver MiQ.
Responsibly sourced gas (RSG)	Natural gas that can be traced from an origin of production to an end user that meets standards set out in a voluntary initiative. Note that the definition of "responsibly-sourced" is not consistent across initiatives.
Transparency	The degree to which an initiative or participant discloses their internal operations and standards and allows for accessibility of information regarding an initiative.
Voluntary initiative	A coordinated effort managed by an administering organization that enables participants to take standardized voluntary steps towards targeting, achieving, and/or taking credit for emissions reductions. In this report, we identify four categories of voluntary initiatives: certifications, commitments, guidelines, and ESG ratings.





Certifications

cer · ti · fi · ca · tion |

: An initiative that holds participants to binding standards that may include emissions reduction performance targets, use of specific technologies, and/or adoption of methodologies. Certifications entail an explicit declaration of achievement from the administering organization to the participant.



Equitable Origin 100™ Standard for Responsible Energy Development

Quick Facts

Initiative type

Certification

Inception

2012

Coverage

Global

Disclosure

Level 5

Performance metrics

Targets based on industry best practice & corporate practices

Technology requirements

None

Emissions quantification

Measurements & estimates

Funding model

Nonprofit funded through donations, grants & certification fees

The Equitable Origin 100™ (EO100™) Standard for Responsible Energy Development is a certification standard created by Equitable Origin in 2012. The initiative verifies energy production sites across a broad range of ESG categories, including human rights, fair labor and working conditions, social impact, community development, corporate governance, and indigenous peoples' rights.

With regards to GHG emissions, participants are expected to achieve certification through the implementation of regularly maintained emissions performance targets that are audited by independent third-party organizations. Operators are expected to quantify and disclose scope 1 and 2 emissions using reporting protocols established by organizations such as the IPCC while also adhering to a number of best practice standards. Companies may also be required to draft emissions reduction plans that achieve performance targets set by Equitable Origin, but the use of specific technologies and methods is not mandated. However, Equitable Origin has recently partnered with MiQ for select projects,

incorporating a more detailed focus on methane emission.

Participants holding the EO100™ certification are held accountable by the 3-year lifespan of each certification, as well through annual audit assessments which are conducted remotely and on-site.



EQUITABLE
ORIGIN



ISO 14001:2015

Quick Facts

Initiative type

Certification

Inception

2015

Coverage

Global

Disclosure

Level 4

Performance metrics

None

Technology requirements

None

Emissions quantification

None

Funding model

Non-profit. Funding from subscriptions paid by national participants & the sale of their standards

The International Organization for Standardization's (ISO) 14001:2015 certification is an international standard that specifies the requirements for an environmental management system (EMS) that an organization may use to enhance their environmental performance. An EMS is a management framework that a participant may use to manage their environmental impact, fulfill regulatory compliance obligations, and assess risks and opportunities associated with their work practices.

The ISO developed this certification system so that any participant may be able to continually improve their environmental performance and demonstrate the efficacy of their environmental practices to customers and other stakeholders. While the certification is non-prescriptive regarding technology and emissions targets, it outlines environmental management standards that are recognized globally.

A non-governmental organization based out of Geneva, Switzerland, the ISO has been operating since 1946 and is a highly respected organization with over 300,000 companies using their array of various reporting frameworks and certifications.

The ISO 14001:2015 certification is an improved version of their original 2004 14001 certification which now implements a plan-do-check-act (PDCA) model, listing various checkpoints that lead to certification. The PDCA model implements a rigorous approach in verifying adherence to the ISO 14001:2015 principles and involves both internal audits performed by a participant, as well as audits from ISO.



MiQ Standard

Quick Facts

Initiative type

Certification

Inception

2020

Coverage

Global

Disclosure

Level 5

Performance metrics

Methane intensity, corporate practices, & technology use

Technology requirements

Multi-scale measurement required

Emissions quantification

Measurements & estimates

Funding model

Not for profit partnership between RMI & SYSTEMIQ

The MiQ Standard is a natural gas certification program that began certification pilot testing in 2021. Built out of a partnership between the Rocky Mountain Institute (RMI) and SYSTEMIQ, the not-for-profit initiative seeks to reduce methane emissions by implementing flexible certification standards for upstream producers.

MiQ intends to certify gas from participants through quantitative evaluation of their methane intensity, company practices, and monitoring technology deployment. Certifications are issued at the upstream point of production and are valid until the associated units of gas are consumed (retired), allowing for traceability of MiQ-certified gas throughout the length of the natural gas value chain. MiQ's certification framework is informed by input from leading groups such as the United Nations (UN), Environmental Defense Fund (EDF), the academic community, as well as over 50 stakeholders.

A highlight of MiQ's approach is their receptiveness to external input and their

commitment to adaptability as technologies and best practices evolve within the field of methane measurement – a principle they are calling the "dynamic standard". Participants are held accountable through public disclosure, a point system predicated on methane intensity, and an auditing process comprised of accredited third-party inspectors.



TrustWell Responsible Gas

Quick Facts

Initiative type

Certification

Inception

2016

Coverage

North America

Disclosure

Level 4

Performance metrics

Methane intensity and operational risks

Technology requirements

Continuous measurement

Emissions quantification

Measurement

Funding model

For-profit, funded by methane monitoring fees & certification fees

In 2020, Project Canary merged with Independent Energy Standards (IES), the originator of the TrustWell™ certification, creating a company with both continuous monitoring technology and a verifiable certification standard for Responsibly Sourced Gas (RSG). The standard is evaluated based on several criteria, including air quality, water stewardship, land impacts, and community interests.

Through the development of proprietary continuous methane monitoring technologies and their own evaluation processes, Project Canary is able to track emissions and evaluate best practices throughout the entire natural gas value chain. This allows for an appraisal of RSG measured against established methane intensity benchmarks from organizations such as ONE Future, the EPA, and the OGCI. Together, IES and Project Canary offer a suite of certification attributes under the shared TrustWell name. Recently the TrustWell Low Methane Attribute has been included within this suite, serving to reinforce the air quality component of the RSG

definition. Participants seeking the Verified Low Methane Attribute certification may be surveyed at the well or basin level, establishing metrics such as methane intensity and methane reduction factors for scope 1 and 2 emissions. The certification looks to provide a level of accountability through a tiered ranking system that grades a participant's emissions approach and applies a performance rating ranging from silver to platinum.





Commitments

com · mit · ment |

: An initiative requiring participants to pledge efforts towards a goal that is decided upon by a governing body or collectively by participants within a group. Commitments are typically auditable, binding, and focus on achieving future goals.



EPA Methane Challenge Program

Quick Facts

Initiative type

Commitment

Inception

2016

Coverage

U.S.

Disclosure

Level 3

Performance metrics

Methane intensity or percent of best management practice commitment achieved

Technology requirements

None

Emissions quantification

Measurement and emission factors

Funding model

Mitigation efforts funded by participants

The U.S. Environmental Protection Agency's (EPA) Methane Challenge Program is a commitment-driven program that requires participants to transparently report actions towards methane emission reductions on a yearly basis. Operating since 2016, the Methane Challenge Program offers participants two distinct pathways towards emissions reduction, each with their own benchmarks and reporting procedures. Partners may choose to follow the commitment protocol defined by the ONE Future Coalition (see ONE Future Coalition), the reductions pathway outlined by the Best Management Practice (BMP) option, or both options at once.

The ONE Future commitment expands on the coalition's work by supplementing methane intensity data with added transparency requirements and publishing annual facility-level emissions and voluntary action data for participating partners.

The BMP option is a pathway designed to create near-term implementation of methane mitigation strategies across the entire O&G value chain within a time span of 5 years. Here, companies submit an individualized implementation plan explicitly outlining their commitments and the steps towards achieving them. The BMP option also mandates annual reporting procedures to be disclosed with the EPA regarding rate of progress, key milestones, and context for implementation plans. There are a number of BMPs made available to challenge participants wishing to pursue this option, collectively covering 10 specific emissions sources within the O&G value chain. Under the BMP option, source-specific mitigation technologies and practices may be required.

Participants who join the challenge have access to benefits of peer networking, information sharing and technology transfer workshop opportunities, and public recognition highlighting individual company achievements.



Global Methane Alliance (GMA)

Quick Facts

Initiative type

Commitment

Inception

2019

Coverage

Global

Disclosure

Level 2 / Level 3

Performance metrics

Absolute methane emissions & methane emissions intensity

Technology requirements

None

Emissions quantification

Measurements & estimates

Funding model

Nonprofit, funded by participants & the European Bank for Reconstruction & Development

The Global Methane Alliance (GMA) is a commitment group that was created by the Climate and Clean Air Coalition (CCAC) in 2019. The alliance includes governments, financial institutions, non-governmental organizations, and industry actors who are unified in their commitment to achieving methane reduction targets within the O&G sector.

The GMA seeks to achieve the emissions reductions necessary to limit climate change to a 2 degree or less scenario and intends to support innovation in methane emissions reduction technologies. The CCAC operates within a number of climate-related initiatives and collaborates with organizations such as the European Commission, the Environmental Defense Fund, and the OGCI. Participants must follow OGMP 2.0 reporting standards and must choose between two emissions reduction targets to be reached by 2025: an absolute reduction target of 45% or an intensity target of 0.25%.

The GMA is an initiative that values shared knowledge and collective effort towards meaningful methane reductions across the entire the O&G value chain.



Global Methane Challenge (GMI)

Quick Facts

Initiative type

Commitment

Inception

2019

Coverage

Global

Disclosure

Level 2

Performance metrics

Differs by participant

Technology requirements

A variety of equipment upgrades

Emissions quantification

Not specified

Funding model

Funded by participants

The Global Methane Initiative (GMI) is an international organization that aims to reduce global methane emissions through a collaborative network of governmental bodies, private industry actors, academic groups, and non-governmental organizations.

In 2019, the group launched the Global Methane Challenge, an initiative designed to support actions towards methane emissions reductions, while showcasing policies and technologies being implemented around the world. The challenge invites participants to establish systematic and transparent monitoring programs and emissions inventories as part of their methane reduction efforts. Action within the challenge encourages the implementation of a number of specific mitigation activities and technologies, as well as commitment to other methane reduction initiatives such as the OGMP 2.0 and the Zero Routine Flaring Initiative supported by the World Bank. The initiative is non-prescriptive but provides participants with access to a wide range of emissions reduction approaches and technologies.

The Global Methane Challenge offers an opportunity for participants to demonstrate their efforts towards lowered methane emissions on a global scale while simultaneously providing a platform for public disclosure and collaboration within the industry. Since its creation, 70+ public and private sector organizations representing 23 countries have joined GMI.



Methane Guiding Principles

Quick Facts

Initiative type

Commitment

Inception

2017

Coverage

Global

Disclosure

Level 2 / Level 3

Performance metrics

Differs by participant. Guided by Paris Agreement

Technology requirements

None

Emissions quantification

Measurements, estimates, & best practices

Funding model

Funding is raised internally by participants

The Methane Guiding Principles are a set of 5 principles that were created in 2017 through a coalition of actors primarily comprised of non-governmental organizations and O&G industry members.

The Methane Guiding Principles may be understood as a collective commitment by participating participants to continually reduce methane emissions, advocate for sound policy surrounding methane emissions, and to improve the accuracy of methane emissions data globally. These principles have been developed with the goals of the 2015 Paris Agreement in mind and are designed to be implemented across all stages of the O&G value chain, focusing on emissions from venting, leaks, and incomplete combustion. Participants may join this coalition as a signatory (emitter) or a supporting organization. The coalition is not prescriptive in approach or technology, but rather offers a wide variety of tools, resources, and best practice guides designed to steer companies towards lowered methane emissions and promote widespread

participation. Benchmarks and targets vary by participant and accountability is assured through public disclosure of progress and adherence to the 5 principles.

The Methane Guiding Principles coalition currently consists of 41 signatories and supporting organizations.



Oil and Gas Climate Initiative (OGCI)

Quick Facts

Initiative type

Commitment

Inception

2014

Coverage

Global

Disclosure

Level 3

Performance metrics

Methane intensity & carbon intensity

Technology requirements

None

Emissions quantification

Measurement & estimates

Funding model

Funding is raised by participants

The Oil and Gas Climate Initiative (OGCI) is an industry-led initiative founded in 2014 that looks to accelerate industry responses to climate change.

Companies involved in the initiative are working to deliver tangible and transparent contributions to emissions reduction solutions and demonstrate industry-leading progress. The initiative derives many of its climate-related principles from the goals of the 2015 Paris Agreement and holds its own collective quantitative methane and carbon reduction goals for its participants. Companies within the OGCI are committed to reaching a methane intensity ambition of 0.20% and/or an upstream carbon intensity target of 20kg CO₂e/BOE by 2025. Plans to achieve these goals are actualized through the expansion of leak detection and repair (LDAR) programs, upgrades to upstream O&G technology, reduced flaring practices and a transition to renewable energy sources where appropriate. The OGCI is focused specifically on scope 1 and 2 emissions from the upstream O&G sector and includes consideration

for product transport, energy efficiency, and carbon capture, utilisation, and storage (CCUS). The initiative is non-prescriptive with regards to technologies and quantification methods. However, funding is allocated through the program to the research and development of 7 specific and innovative LDAR technologies. Progress and accountability are assured with the initiative's participants by way of data collection and analysis from independent third-party organizations, as well as through progress reports which are submitted and reviewed annually.



Our Nation's Energy Future Coalition (ONE Future)

Quick Facts

Initiative type

Commitment

Inception

2014

Coverage

U.S.

Disclosure

Level 3

Performance metrics

Methane intensity

Technology requirements

None

Emissions quantification

Measurement & estimates

Funding model

Funded by participants

The ONE Future Coalition is a growing group of over 40 U.S. companies that have committed to voluntarily reduce their collective methane emissions intensity across the natural gas value chain to 1% or less by 2025. By joining the coalition, a company agrees to measure their methane emissions and track progress according to a uniform reporting procedure which expands on the requirements outlined by the EPA Green House Gas Reporting Protocol (GHGRP).

While the coalition is independent and industry led, participants have the option to disclose their emissions data and collaborate with the EPA under their Methane Challenge Program. Regardless of EPA disclosure, participant companies are provided with an EPA-generated reporting framework that requires companies to report their emissions data to the coalition on an annual basis, ensuring continual engagement and accountability.

One of the key principles of the ONE Future initiative is allowing participants to allocate capital towards reductions approaches in a way that is tailored to the capacities of each company. Companies are therefore not mandated to implement any specific technologies or methodologies in their pursuit of emissions reductions.

The ONE Future coalition launched in 2014 and has surpassed their original 1% intensity goal every year since 2017.



Science Based Targets Initiative (SBTi)

Quick Facts

Initiative type

Commitment

Inception

2015

Coverage

Global

Disclosure

Level 3

Performance metrics

Independent, guided by Paris Agreement

Technology requirements

None

Emissions quantification

Not established

Funding model

Funded by investment & donation

The Science Based Targets Initiative (SBTi) is an emissions reduction program that launched in 2015 through a collaborative effort by the UN Global Compact, the World Resources Institute (WRI), the World Wildlife Fund for Nature (WWF), and CDP (formerly Carbon Disclosure Project).

The SBTi works with businesses to provide methods, frameworks, tools, and guidance to create robust science-based targets that minimize their greenhouse gas (GHG) outputs. Targets are created with consideration of each company's unique capacity to reduce their GHG emissions and are designed to comply with the climate goals of the 2015 Paris Agreement. The SBTi is a dynamic and transparent initiative that is currently expanding its influence over a number of business sectors. Their targeting framework for the O&G sector is slated for release in early 2021. The SBTi is guided by measurable metrics that are backed by leading organizations. Participants are held accountable through public disclosure, annual reporting, and explicit timelines.

The SBTi looks to provide a clearly defined pathway for companies that wish to make a concerted effort towards emissions reductions.



DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

The Environmental Partnership

Quick Facts

Initiative type

Commitment

Inception

2017

Coverage

U.S.

Disclosure

Level 3

Performance metrics

Equipment performance

Technology requirements

Multi-scale measurement

Emissions quantification

Measurement, estimates,
& best practices

Funding model

For profit, funded by
industry participants

The Environmental Partnership was formed in 2017 by a number of U.S. O&G industry members.

Best understood as a commitment to a variety of best practice frameworks, the Environmental Partnership has established 6 different programs that operate on various upstream and midstream production components and are designed to further reduce emissions using proven cost-effective technologies and methods. Each program provides participants within the partnership with comprehensive details and emissions reduction strategies that may be implemented in a number of scenarios to reach reduction goals. The level of prescriptiveness regarding technology or methodology within this initiative varies across the 6 different programs. Certain technologies are mandated or standardized for different emission reduction strategies and timelines to achieve targets that differ by participant. The values of the initiative are predicated upon learning and collaboration through shared knowledge among participants.

The Environmental Partnership provides participants with clear and actionable measures to ensure that emissions from across the O&G value chain are monitored, reported, and prevented. It also provides a number of educational workshops and conferences to encourage learning and improvement of operational practices and technologies.





Guidelines

guide · lines |

: A set of frameworks, standards, principles, and/or tools designed to assist participants in meeting their goals and reporting on their progress.



Natural Gas Sustainability Initiative (NGSI)

Quick Facts

Initiative type

Guidelines

Inception

2018

Coverage

North America

Disclosure

Level 3 (with the opportunity for disaggregated reporting)

Performance metrics

Methane Intensity

Technology requirements

None

Emissions quantification

Emissions factoring

Funding model

Non-profit, funded by American Gas Association and Edison Electric Institute

The Natural Gas Sustainability Initiative (NGSI) is an industry-led effort addressing environmental, social, and governance (ESG) issues throughout the natural gas supply chain. Founded in 2018 as a joint operation between the American Gas Association and the Edison Electric Institute, the NGSI looks to provide an openly available monitoring and reporting framework that specifically tackles methane intensity.

Released in February 2021, the Methane Emissions Intensity Protocol Version 1.0 is the main resource offered by the NGSI. The protocol is a detailed calculation and reporting methodology that builds on existing approaches to examining methane intensity that have been established by the EPA. Designed to address all segments of the natural gas value chain individually, the Methane Emissions Intensity protocol incorporates emissions that may not meet the intensity thresholds of other reporting schemes. While the protocol is primarily based on emissions factors, future efforts may include direct measurement.

Non-prescriptive with regards to monitoring

technologies, the reporting protocol requires companies to input their own data. Accountability among NGSI participants may be assured through adherence to their reporting procedure. The initiative also encourages participants to publicly disclose their emissions metrics, but this is not a requirement.

Oil and Gas Methane Partnership 2.0 (OGMP 2.0)

Quick Facts

Initiative type

Guidelines

Inception

2020

Coverage

Global

Disclosure

Level 3

Performance metrics

Reduction targets based on industry best practice

Technology requirements

None

Emissions quantification

Measurement

Funding model

Not specified

The Oil and Gas Methane Partnership 2.0 (OGMP 2.0) is a systematic reporting framework designed by the United Nations Environment Program (UNEP) and the Climate and Clean Air Coalition (CCAC).

Released in 2020 as a rework of the original 2014 OGMP initiative, OGMP 2.0 provides participants with an emissions quantification framework with 5 distinct reporting levels. Unlike the previous iteration, this initiative extends its scope 1 emissions reporting framework to midstream and downstream segments of the O&G supply chain, and places a concerted emphasis on transparency, flexibility, and collaboration among participants. OGMP 2.0 is designed to allow flexibility in target setting approaches and technological deployments, however, much of the initiative's value comes from its regimented emissions quantification methodology and reporting procedure. Under this framework, participants are expected to announce their own individualized targets, which may be reviewed by others within the partnership. The UNEP looks to publicly

disclose aggregated methane emissions data with a long-term goal of incentivizing the use of natural gas with the low emissions intensities.

OGMP 2.0 is accessible, widely adaptable, and anticipated to continue gaining traction with O&G companies around the world.



Sector Standards for Oil and Gas

Quick Facts

Initiative type

Guidelines

Inception

2021

Coverage

Global

Disclosure

Level 1

Performance metrics

Differs by participant

Technology requirements

None

Emissions quantification

Independent

Funding model

For profit, funded by government initiatives, commercial services, & corporate engagements

The Global Reporting Initiatives' (GRI) Sector Standards for Oil and Gas are a set of reporting guidelines that are scheduled for release in 2021.

These are a set of non-prescriptive standards that will guide participants as they navigate emissions reporting. The GRI understands that disclosure is a big step for companies that want to communicate their sustainability efforts to the public, governments, and other stakeholders. The O&G standards will be designed to encompass GHG emissions from throughout the O&G value chain and will detail what and how participants should be reporting. In existing sector guidelines, the GRI provides a comprehensive system of documentation, tools, resources, and workshops – the same can be expected for the O&G sector standards. The reporting standards outlined by the GRI allow flexibility in the approaches and technologies used to reduce emissions and do not mandate specific benchmarks.

Operating since 1997, the GRI has created guidance initiatives for 26 different business sectors and has worked with over 15,000 organizations. The Sector Standards for Oil and Gas will build on this robust body of work.



Task Force for Climate-related Financial Disclosure (TCFD)

Quick Facts

Initiative type

Guidelines

Inception

2015

Coverage

Global

Disclosure

Level 1

Performance metrics

Investor interest

Technology requirements

None

Emissions quantification

None

Funding model

Not specified

The Task Force for Climate-Related Financial Disclosure (TCFD) was developed in 2015 by the Financial Stability Board for the purpose of guiding disclosure to stakeholders and the public.

Shaped by themes of liability and risk associated with climate change, the TCFD provides companies with reporting recommendations that guide climate-related disclosure in order to promote informed investment, credit, and insurance. By adopting the TCFD disclosure guidelines, companies may clearly communicate their sustainability efforts, allowing investors, lenders, insurers, and other participants in the market to have a more transparent understanding of the risks they face.

Covering 4 main areas of governance, strategy, risk management and emissions targets, the TCFD is unique among voluntary initiatives in its focus on the financial impacts of climate strategy and its concern with investment interest as a function of environmental efficacy. Where other initiatives may frame financial performance as a by-product

of an enhanced sustainability efforts, the TCFD addresses the market reactions to sustainability directly. These guidelines are designed to encourage sustainable investments and support an economy that is resilient in the face of climate-related uncertainty. Moreover, the TCFD is easily implemented and designed to be widely adoptable across a range of industries beyond O&G.

Currently used by 46 companies within the energy sector, the TCFD has gained global recognition and use.



A photograph of an industrial facility at night, featuring large storage tanks and complex piping structures illuminated by artificial lights. The scene is set against a dark sky, with a white L-shaped corner graphic in the top right corner.

ESG Ratings

e · s · g · rat · ing |

: An evaluation of a company based on an assessment of their quality, standards, and performance on environmental, social, and governance (ESG) issues. Compiled ESG data is used to generate information products that compare different companies on the basis of their exposure to – and ability to manage – ESG risks.



Climate Change Score

Quick Facts

Initiative type

ESG Rating

Inception

2003

Coverage

Global

Disclosure

Level 2

Performance metrics

Questionnaire score

Technology requirements

None

Emissions quantification

Questionnaire

Funding model

Nonprofit, funded by application fees

The CDP (formerly Carbon Disclosure Project) Climate Change score is the longest-running initiative in this report. Operating as a not-for-profit since 2003, the CDP provides a sustainability evaluation platform for a wide range of businesses extending beyond the O&G sector.

This initiative looks to give businesses an understanding of their sustainability performance as it relates to 3 categories of impacts on climate change, water security, and forested areas. Evaluation is performed through the completion of a questionnaire by participating organizations. The CDP uses an independent grading scheme in the analysis of the provided information and assesses applicants with a letter grade ranging from A to D-. The CDP cites investor confidence as a main benefit to their scoring system, allowing companies to outwardly demonstrate their sustainability standards to their respective markets. Scoring is based solely on self-reporting; the framework is neither binding nor auditable. The CDP Climate Change Score offers a singular rating based on voluntary information provided by

each applicant and does not provide prescriptive feedback detailing methodologies, technologies, or business practices.

The CDP has proven to be an extremely popular and accessible scoring system that has been applied to over 2400 companies in North America and over 9600 globally.



