

# Mineral Methane Initiative

## OGMP2.0 Framework

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## The Case for a new Gold Standard in Methane Emissions Reporting

The Oil and Gas Methane Partnership (OGMP) methodology was designed in 2014 in a partnership among industry, government and civil society as part of the UNEP-led Climate and Clean Air Coalition's (CCAC's) Mineral Methane Initiative. (MMI). The OGMP was launched in 2015 as “a voluntary initiative to help companies reduce methane emissions in the oil and gas sector”. Through participation in the OGMP associated reporting, companies were provided with “a credible mechanism to systematically and responsibly address their methane emissions, and to demonstrate this systematic approach and its results to stakeholders”. The main way in which the OGMP supported companies in demonstrating this approach and its results to stakeholders was through the annual OGMP company reports.

Five years later, the methane landscape has changed significantly. An increasing number of industry players have understood the importance of mitigating methane emissions. The OGMP is part of the Mineral Methane Initiative (MMI). Within the MMI, OGMP's efforts have been complemented by a set of international Science Studies, an emerging project of a Global Alliance of countries, as well as the availability of new technological solutions, to name a few. In addition, a number of companies have made collective methane emission intensity targets under the Oil and Gas Climate Initiative (OGCI) and/or in their individual capacities.

The current OGMP (public) reporting framework is specifically focused on four key elements:

1. Percentage participation in the Partnership, i.e. the percentage of a company's activities that are included in the Partnership
2. Number of individual core sources present in a company's participating assets
3. Mitigation status of each core source type
4. Emission reductions achieved

Under the current OGMP reporting framework, no actual methane emission figures are reported publicly. In the company reports submitted to the Secretariat, methane emissions are reported only for unmitigated core sources, and this information is kept confidential by the Secretariat and not included in the public reporting, even at an aggregated level. Company experience shows that methane emissions from unmitigated core sources (i.e. those emissions reported to the Secretariat), may only represent a small percentage (in one case less than 5%) of the total methane emissions from a company's participating assets. The reason for this is that emissions also occur from non-core sources, or from core sources that are mitigated but nonetheless still have emissions.

In light of the fact that stakeholders are becoming increasingly interested in understanding companies' actual methane emissions performance and leading companies are becoming more interested in highlighting their work on reducing methane emissions a robust methane reporting framework focused not only on reductions, but also on actual methane emissions performance is sought for the OGMP.

The OGMP 2.0 Reporting Framework overhauls the existing OGMP reporting framework with the intent of fostering an improved understanding which then leads to strategic action while enhancing transparency for civil society and governments. Accordingly, it has been designed to:

- Broaden the understanding of methane emissions across all oil and gas segments;

- Improve the credibility of methane reporting to better inform methane-reducing challenges and best practice through a more robust and consistent reporting framework; and
- Stimulate growth in OGMP participation from current non-members in the oil and gas industry by providing a roadmap to meet the reporting expectations of the gold standard.

This improved methane reporting through the OGMP 2.0 has a performance element that focuses on reduction approaches, technology advancement and policy development, aiding the oil and gas industry in achieving deep reductions in mineral methane emissions over the next decade. Benchmark performance and the facilitation discussion on performance amongst members could be other additions.

External methane reporting serves two purposes: encouraging mitigation activities and accurately assessing progress towards targets. The design challenge is to ensure that the reporting framework fosters and encourages reporting that remains directly connected to strategic action. The reporting system in which the reporting framework resides must be an essential part of the methane management process, whereby reported data is used to prioritize and assess methane emission reduction opportunities. Therefore, in 2019 OGMP partners decided to launch an initiative to review the initial version of the OGMP reporting framework and to extend it to the midstream and downstream segments (excluding end-use).

The OGMP Reporting Framework 2.0 will provide the public the assurance that this important greenhouse gas is being managed responsibly by participating companies in the oil and gas sector. Companies that conform to the gold standard of reporting will be provided with the means to credibly demonstrate that they are contributing to climate mitigation and delivering against their methane improvement objectives and targets, as relevant.

## 1 Introduction

The reduction of methane emissions is a unique climate opportunity: methane emissions are an important contributor to global warming.

The MMI aims to promote deep cuts in the methane and black carbon emissions from the production, transmission, and distribution of mineral methane including the following goals relating to the oil and gas sectors:

- 45% emissions reductions in methane emissions over estimated 2015 levels by 2025;
- 60-75% reductions by 2030; or alternatively
- a ‘near zero’ emissions intensity, such as the OGCI collective average target for upstream operations of 0.25% by 2025;

OGMP member companies recognize the importance of rapid action to reduce methane emissions across the industry. The values set out above are average targets meant to provide a global goal for the industry. Companies may adopt different targets, with better performing companies expected to set more ambitious targets than the average targets above. This is a similar mechanism as is used in Nationally Determined Contributions (NDC) commitments.

This ambition is supported by three MMI initiatives:

- Methane Science Studies (MSS): Advances the understanding of methane sensing and reduction technologies;
- Global Methane Alliance (GMA): NDC integration and implementation support, which facilitates methane reduction policy;

- Oil and Gas Methane Partnership (OGMP): Global methane reporting, which facilitates credible methane emissions reporting from the oil and gas value chains.

A key hurdle for managing methane emissions is gaining a consensus on the specific quantity and distribution of mineral methane emissions, given the high uncertainty associated with traditional methods to quantify methane emissions. Methane emissions are particularly challenging to quantify because they often result from unplanned occurrences – i.e. leaks, equipment malfunctions, or damage caused by third parties of which the quantity, duration, and frequency can highly vary across industry. Generally, only a small number of geographies have been the subject of rigorous and publicly verifiable emissions review. Therefore, the credibility of reported methane emissions globally has recently been highly contested. Nevertheless, historic national submissions by countries to UNFCCC represent a pragmatic baseline.

The OGMP is a multi-stakeholder partnership with representatives from governments, international organizations, non-government organizations and the oil and gas industry.

Against this background and mandate, the OGMP partners have developed this OGMP 2.0 methane emissions reporting framework to provide a ‘gold standard’ for methane emissions reporting and performance. The OGMP is a multi-stakeholder partnership with representatives from governments, international organizations, non-government organizations and the oil and gas industry.

This document is structured to help existing and new OGMP members understand the benefits, requirements and supporting activities for reporting to the OGMP2.0 Reporting Framework ‘gold standard’.

Information is also provided on the structure and oversight of various activities required in support of the OGMP 2.0 Reporting Framework.

## 2 Objectives and Principles

The OGMP 2.0 Framework has been designed by members to be the cornerstone of the Mineral Methane Initiative with four key objectives:

- 1) Provide governments and the public with assurance that industry members’ methane emissions are being managed responsibly, thus helping inform policy decisions.
- 2) Provide member companies with a credible means to demonstrate that they are contributing to climate mitigation, making progress against their declared absolute emissions reduction or intensity targets and contributing to the MMI targets, thus reinforcing natural gas as a desirable fuel for use through the energy transition.
- 3) Encourage improved methane reduction performance in reporting and methane emission reduction through transparency, flexibility, collaboration, and best practice sharing.
- 4) Encouraging wider participation in the OGMP 2.0 so significant sectoral methane emission reduction improvements in line with the MMI objectives can be realized by 2025/2030.

## 3 Responsibilities of non-company members

Member Governments, NGOs and IGOs will actively support and partner with companies to seek remove barriers in relevant jurisdictions.

The European Commission will actively support and partner with companies to help remove barriers in relevant jurisdictions, and will be establishing and funding the Mechanism referred to in Section 4.6.

## 4 Reporting Framework

### 4.1 Reporting Scope

#### **Principles:**

1. Companies report their Scope 1 methane emissions from all assets under operational control and assets within non-operated joint ventures consistent with the definition of materiality included in section 4.5
2. Assets along the whole of the oil and gas value chains are in scope excluding end users. Methane emissions from oil product manufacturing (i.e. refineries and chemical plants) are excluded, as they are end users, but may be considered for inclusion in a later phase.
3. Recognizing that operated and non-operated ventures present different challenges, the reporting framework provides flexibility in terms of timing to accommodate these challenges.
4. Reporting is done confidentially by “reporting unit”, with public disclosure on a consolidated corporate basis or using the methodological levels described in the Section 4.4.
5. If companies are not permitted to share data from any of their operated or non-operated venture assets, they will provide evidence of why this is the case, together with descriptions of the steps they are taking to obtain these permissions.

The OGMP 2.0 Framework sets out an approach to report Scope 1 methane emissions from all sources at both operated and non-operated ventures across the oil and gas value chains (but excluding end users) in the manner and over the timeframes set out in this document. To elaborate:

1. The current Framework is specifically designed for the **oil and gas sector**. However, it can be adapted to other mineral methane emitters outside of the oil and gas industry under the OGMP2.0 initiative (e.g. coal industry or end users such as refineries).
2. The Framework applies to **all segments** of the oil and gas sector where material quantities of methane can be emitted. This includes upstream exploration and production, gathering and processing, liquefaction and regasification terminals, gas transmission, underground gas storage and distribution (gas downstream). This includes all assets and facilities along the gas value chain as well as oil exploration and production facilities where associated gas is co-produced, whether used, marketed or re-injected.

Methane emissions associated with oil refining and chemical manufacture as well as gas end use are currently not within the Framework reporting scope.

3. The Framework applies to **both operated and non-operated ventures**. However, the Framework treats operated and non-operated ventures differently with regards to timing and targets (see Section 4.2, targets are not expected for non-operated joint ventures). Reporting applies to assets under operational control, and assets within non-operated joint ventures consistent with the materiality definition included in section 4.5
4. The Framework applies to direct emissions of methane (**Scope 1** emissions as defined by the [GHG Protocol](#) Corporate Standard). Scope 2 emissions, indirect emissions from the generation of purchased energy, and Scope 3 emissions, indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, are not within the Scope of the Framework
5. The Framework applies to **all sources** of methane emissions. This includes emissions from process venting, emissions due to unintentional leaks (i.e. fugitive emissions) and emissions due to incomplete combustion (e.g. heating, power generation, flaring). This extends the original 9 Core Sources identified by the OGMP to all sources. Accordingly, as discussed in Section 4.3.1, the existing OGMP Technical Guidance Documents (TGDs) will be updated and augmented to assist companies in reporting on other sources.
6. Projects, Acquisitions and Divestments. In case of acquisition of new assets, the company will have the same pathways to gold standard with respect to those assets as a new company joining the OGMP as described in section 4.2.2.

## 4.2 Reporting Requirements

Below are the reporting requirements to report to the ‘gold standard’ set by the OGMP 2.0. Please note that the expected timing and data accuracy are different for operated and non-operated ventures.

Members are expected to work towards reaching ‘gold standard’ in a set period defined in section 4.2.2. For more on reporting requirements through the phase-in period, refer to Section 4.2.2.

To achieve ‘gold standard’, a company must demonstrate an explicit and credible path to the required reporting levels (according to 4.3.2) within the required period (according to 4.2.2 and 4.4).

The path should be demonstrated through a multi-year plan that shows how the company plans to achieve these objectives. For clarity, ‘gold standard’ includes the credible path towards the agreed endpoint within the agreed timeline, rather than just the endpoint itself.

Once a company achieves ‘gold standard’ it can maintain it by continuing to show progress towards level 5 in its annual reporting under the Framework and ultimately by reporting annually at level 5.

For companies joining the OGMP following its launch in the fall of 2020, achieving gold standard requires:

- Submission of an OGMP compliant Level 1 report at asset level for all in-scope assets in line with the reporting cycle.
- Submission of a granular plan per asset to get to Level 4/5 for all in-scope assets, within the required period (according to 4.2.2 and 4.4) which starts from the date the relevant company formally joins the OGMP.

Companies may lose ‘gold standard’ status if they do not meet the credible path mentioned above or report at levels 4/5 within the defined time periods for the overwhelming majority of their operated and non-operated venture assets (as per Section 4.1), subject to the reasonable and demonstrable efforts approach outlined in section 4.2.1.

For the avoidance of doubt, OGMP member companies are not expected to report any data that would not be in compliance with relevant laws and regulations.

### 4.2.1 Venture reporting

Member companies provide the following data from all applicable assets and sources (see Section 4.1) annually to meet the ‘gold standard’ of reporting. Methane emissions data submitted to the OGMP should be aligned with the existing reporting boundaries that companies use in their environmental and social governance reporting.

OGMP companies are encouraged to align those reporting boundaries with industry best practice and international GHG reporting protocols such as the GHG Protocol Corporate Standard Revised 2015 and IPIECA Petroleum Industry Guidelines for Reporting Greenhouse Gas Emissions 3<sup>rd</sup> Edition, September 2015, where they are not already aligned.

The following table provides a high-level description on data to be reported as part of this Framework.

Item	Description
List of operating partners for non-operated ventures	Companies will provide biennially a list of the partners that operate or otherwise have financial control of non-operated joint ventures (provided that no restrictions apply). The list will be consistent with the materiality definition in section 4.5.
Individual asset reporting	Companies will, where allowed, report emissions for each major asset or venture either on a 100% or equity basis, specifying the methodology used for each source as defined in section 4.4 and consistent with the materiality definition included in section 4.5. Giving companies a choice whether or not to report all emissions of the venture is intended to avoid technical complications of defining the applicable equity share, but companies may nevertheless choose to report on an equity basis.
Methane intensity	Those companies who have announced an upstream methane intensity target (instead of an emission reduction target) will report, where permitted, for example, the sum of all gas marketed or conveyed over the period to aid in calculation of methane

	emission intensity. Other parameters to calculate the methane intensity for mid- and downstream segments will be used (i.e. transmitted gas, distributed gas, length of the pipeline, regasified gas, withdrawal gas, etc). Each company is to provide the information reflecting the denominator used in their methane intensity target.
Methane absolute reduction	Those companies who have announced an absolute reduction target should also report their baseline year and reference year for calculating the absolute reduction in methane emissions.

Below are key definitions for ‘source’, ‘site’, ‘asset’, and ‘facility’. These are provided to facilitate a reasonable reconciliation of top-down measurements with bottom-up source aggregation at the ‘site’ level, and to aid in distinguishing between the operations of one operation and other surrounding operations.

Asset/operating unit: the term does not imply a level of aggregation of operations, but should be a logical business or operating unit (e.g. individual processing plants, gathering facilities, or offshore platforms; producing basins; regional assets; LNG operations, pipeline network with all the components, etc.). Partner companies can determine the appropriate level at which they describe their participating facilities, within the following criteria:

- An operation/asset unit should be defined such that all facilities or sites of the unit are participating in the program (e.g. several production batteries within a sub-region are listed as one operation/asset).
- An operation/asset unit that is defined by geographical bounds should typically be smaller than a country, and could be one site / facility or a group of these.

Source: a component within a process or equipment that releases methane to the atmosphere either intentionally or unintentionally, intermittently or persistently.

Site/facility: all sources within a physical unit (e.g., production battery, compressor station, processing plant, transmission station, pipeline segment, liquefaction plant, etc.). Site-level measurement (i.e. Level 5) reporting would consider sites as the appropriate level to reasonably and transparently reconcile Level 4 and Level 5, but not to introduce needless complexity or cost in reporting below a venture level (e.g. combined wells and gathering systems comprising a production asset, not each individual well pad or pipeline).

For both operated ventures and non-operated ventures (NOVs), the Framework envisages a ‘reasonable and demonstrable effort’ approach for reporting methane emissions while recognizing that there are barriers to securing full or partial disclosure of methane emissions from joint venture partners, including legal compliance. This reflects the variability in joint venture partnerships, varying levels of methane reporting programme maturity, and the differing objectives, structures and motivations of the operating partners.

Joint ventures may be incorporated or unincorporated entities. They may consist of national, international and local producers, each with very different value drivers.

To accommodate reporting, “reasonable and demonstrable effort” is defined as following:

- Where an OGMP member operates a venture, that OGMP member is expected to share methane emission data required to align with this framework to other non-operating OGMP member companies in the venture. Where confidentiality provisions of relevant

joint venture agreements do not allow for disclosure of this data beyond the joint venture, all relevant OGMP companies will endeavour to seek approval from applicable parties to disclose the data within a 1-2 year period.

- Where non-OGMP members operate a venture, the OGMP member is expected to report venture and 'site' level methane emissions where made available by the operator and where existing joint venture or other applicable agreements allow, and the data is already collected. Where data is not available or joint venture or other applicable agreements do not currently allow for sharing, the OGMP member will note the reason for not being able to share the data, as well as efforts that will be taken in an attempt to share the data in future reports. Such efforts may include specifically seeking permission from joint venture participants or other relevant stakeholders to enable disclosure.
- Where, despite making reasonable efforts to remove any restrictions on reporting methane data to the OGMP, an OGMP member is unable to or prohibited from reporting methane emissions data from either an operated or a non-operated venture, the inability to report that data shall not affect the gold standard status of the OGMP member provided that the OGMP member shares with the OGMP information on the reasons for the inability or prohibition of reporting this data, together with descriptions of the steps being taken to obtain these permissions.
- Where, despite reasonable and demonstrable efforts to work with a partner to improve methane reporting, the non-operated joint venture does not modify its systems to provide information aligned with the gold standard of reporting, the inability to secure this level of reported data shall not affect the gold standard status of the OGMP member provided that the OGMP member share with the OGMP information describing efforts to work with the partner toward improving its methane emissions reporting.

#### 4.2.2 Phasing

##### **Principles:**

1. Methane emissions should be substantially mitigated to a low intensity level or significantly reduced in absolute terms consistent with the MMI targets for the total industry, and within a timeframe consistent with it.
2. In scope operated and non-operated ventures have different timelines: 3 years for operated and 5 years for non-operated ventures to reach level 4/5 consistent with 4.2.1.
3. Reporting should demonstrate reasonable progress towards these goals. The level of progress and timely achievement defines gold standard performance.
4. Companies should distinguish in their reporting between reductions from methodology change and those from reduced emissions.

To encourage member and future member companies to prescribe to this 'gold standard' of methane emissions reporting, the Reporting Framework includes a timeline to meet the reporting requirements as outlined in this section. Over a period of 3 years for operated ventures and 5 years for non-operated ventures companies can report emissions data of lower accuracy than the Reporting Framework requirements for gold standard, and still be deemed to be at gold standard if the explicit and credible path to reach the highest levels of reporting within the timeline above is provided through a multi-year plan. The timeline is set to balance the need to deliver methane

emission reductions in line with the Paris Agreement goals with the realities of driving change in large and complex member companies.

The schedule below describes, by year, which parts of the Reporting Framework apply to achieve the ‘gold standard’. It also describes the expected progress in reporting quality over this phase-in period.

Member companies are expected to provide the OGMP with an implementation plan that credibly describes the company’s path to get to gold standard, in line with the process defined below.

### 4.2.3 Target and ratcheting

Member companies will announce their own methane reduction targets to the OGMP that are consistent with the overall targets for the industry as a whole. In line with the common objective to continuously reduce greenhouse gas emissions, these targets will be reviewed by companies on a periodic basis. Companies might modify their methane targets during these reviews as necessary to stay aligned with overall evolving industry best practices.

## 4.3 Source granularity and quantification methodologies

### Principles:

1. Prioritize increased coverage and direct measurement; reduce uncertainty next.
2. Gold standard reporting implies continuous improvement in the following dimensions:
  - a. Increase in the use of direct measurements, where applicable (direct measurements should be a combination of site-level (or top-down) and source level (or bottom-up) measurements).
  - b. Transparency in the methodology used for reported numbers.
3. Equivalence to avoid duplication or inconsistency between reporting requirements (e.g. regulatory, OGCI and OGMP 2.0)
4. Distinguish reporting between emissions changes resulting from methodology or actual emissions changes.

For details see section 4.4.

### 4.3.1 Core Sources

### Principles:

1. Expand the OGMP 1.0 core sources to cover all material sources.
2. Adapt the current Technical Guidance Documents and develop new ones for relevant sources

OGMP 2.0 guidance documents address the following:

1. Core sources: This will describe the core sources used for reporting purposes. This will be based on the OGMP 1.0 nine core sources, incomplete combustion from

flaring, additional mid and downstream and other sources. New Technical Guidance Documents will be developed. For midstream sources those will be based on the Marcogaz Assessment of methane emissions for gas transmission and distribution system operators.

2. Uncertainty, reconciliation, and materiality
3. Reporting

### 4.3.2 Quantifying Emissions

#### **Principles:**

1. Five methodologies are described that provide sufficient flexibility to accommodate all ventures, both operated and non-operated.
2. Gold standard is achieved when all assets with material emissions where there are no restrictions on reporting report at level 4 and demonstrate efforts to move to level 5.

In order to report methane emissions, companies may employ a variety of quantification methodologies.

## 4.4 Quantification

Companies and individual assets may be at different stages of their methane management and reporting journeys. The OGMP 2.0 acknowledges this fact and allows companies to categorize their asset-level reporting by 5 distinct reporting levels. The reporting levels are based upon:

1. Reporting granularity, both at the level of sources and geography (i.e. global, simplified consolidation categories, detailed source type and/or by region/country/asset)
2. Quantification methodologies (e.g. generic and source specific emissions factors, engineering calculations, simulations, direct measurement, etc.)
3. Uncertainty in the quantification (i.e., emission factors, direct measurements, and complementary reconciliation monitoring processes, e.g. site-level measurements)

For each in-scope asset, companies should provide information about what quantification methodologies are utilized for emissions estimation. In line with the principles of the reporting framework, companies seek to progressively move all assets with material methane emissions to reporting level 4 and demonstrate efforts to move these assets to reporting level 5. Note that companies will typically (and particularly to begin with) have assets in multiple reporting levels. It is important to note that while companies will report asset-level data into the OGMP 2.0, this data will be treated as confidential and aggregated in such a way for external reporting (e.g. in annual reports), that individual asset level data will not be disclosed.

### **Timeframe**

The timeframe for companies to achieve the OGMP 2.0 reporting requirements for gold standard is 3 years for all operated ventures. For non-operated ventures (NOVs) the timeframe is 5 years. However, it is understood that there may be challenges outside of an OGMP company's control that prevent reporting at levels 4 or 5 for both operated or non-operated ventures within these timeframes (e.g. should an emerging technology to quantify methane emissions prove infeasible or unreliable). In these cases, if the relevant company can show that efforts consistent to 4.2.1 have been made to obtain and disclose methane emissions data at

levels 4 or 5, then this shall be deemed to meet the reporting requirements and shall not impact the ability of the company to achieve or maintain gold standard.

#### **The five OGMP 2.0 reporting levels:**

- Level 1 – Emissions reported for a venture at asset or country level (*i.e. one methane emissions figure for all operations in an asset or all assets within a region or country*)
- Level 2 - Emissions reported in consolidated, simplified sources categories (based on IOGP's 5 emissions categories for upstream, and MARCOGAZ' 3 emissions categories for mid and downstream), using a variety of quantification methodologies, progressively up to the asset level, when available.
- Level 3 – Emissions reported by detailed source type and using generic emission factors (EFs)
- Level 4 – Emissions reported by detailed source type and using specific EFs and activity factors (AFs)
  - Source-level measurement and sampling may be used as the basis for establishing these specific EFs and AFs, though other source specific quantification methodologies such as simulation tools and detailed engineering calculations (e.g. as referenced in existing OGMP TGDs) may be used where appropriate.
- Level 5 – Emissions reported similarly to Level 4, but with the addition of site-level measurements (measurements that characterize site-level emissions distribution for a statistically representative population).

Progression from one reporting level to the next requires an increasing comprehensiveness in terms of emission source granularity, methodological rigor in quantification and reduced uncertainty in the reported figures.

Reporting level 5 sets itself apart from the other OGMP 2.0 levels in that it also requires the use of site-level measurement to reconcile source- and site-level emission estimates. Site-level measurement typically involves the use of sensors mounted on a mobile platform (e.g., vehicles, drones, aircrafts, boats), satellites or other means to capture a complete overview of emissions across an entire site. This quantification of site/facility-wide emissions, which is independent from the source-level quantification, allows assessment and verification of the source-level estimates aggregated by site/facility.

Site-level measurement within the context of OGMP 2.0 reporting level 5 may include measurement conducted by, or on behalf of, OGMP 2.0 partner companies or measurement conducted as part of measurement campaigns undertaken by third parties (e.g. academia, governments, other initiatives, etc.) As long as the data is gathered and presented in a demonstrably credible and transparent way, companies can utilize the information and data from relevant site-level measurements to support in the reconciliation step required for level 5 reporting.

For site-level measurement, companies can use (and/or rely on data acquired by) any number of relevant technologies that allow for credible measurement at the site level. Current examples would typically include sensors mounted on planes, drones, boats, trucks, etc. or any other vehicle or structure that would allow all site level emissions to be measured. Satellite measurement, assuming sufficient resolution, could also potentially represent an acceptable technology for site-level measurement.

The frequency for site-level measurements, again within the context of OGMP 2.0 reporting level 5, should be dictated using a risk-based approach. Operations where the data suggests that

there are very large discrepancies between the emissions quantified using source-level methods and those resulting from site-level measurement should be candidates for more regular follow-up measurement. Those operations where the discrepancies are lower, and/or where the absolute emissions levels (or risk of significant, unidentified emissions) are minor, should be subject to less regular site-level measurement. The International Methane Emissions Observatory is expected to be able to play a role in supporting the identification of asset types/regions (using e.g. satellite data) for which more regular site-level measurement should be conducted.

Note that while there may be some similarities between the OGMP 2.0 methodology levels and the reporting tiers used by the IPCC ([2006 IPCC Guidelines for National Greenhouse Gas Inventories, Chapter 4](#)), there are some considerable conceptual and methodological differences and the two concepts should not be confused. Specifically, the OGMP reporting levels combine both the complexity of quantification and the granularity of reporting into the same concept of a “reporting level”.

It is important to note as well that there may be situations where quantification methodologies associated with different reporting levels are applied to different source (or category) types in the same asset. In these cases, the OGMP 2.0 level that best reflects the overall methodological complexity applied to the majority of the methane emissions from the company/asset should be reported.

Listed below are more details related to what each OGMP2.0 reporting level entails.

## OGMP Level 1 - Country / venture/asset level

Country /venture/asset level reporting is the lowest reporting level for the OGMP 2.0. Reporting at Level 1 is reserved for operations where a company has a very limited sharing of information on the operations and methane emissions situation. This reporting level will typically be applicable for assets for which a company has not undertaken any methane emission source mapping or survey activities or where information from the operator is highly limited. Reporting at this level involves the reporting of a single consolidated emission number (or a limited number of emission numbers) representing the emissions from a reporting unit. Emissions reported at this level are not allocated to individual categories or source types. Emissions at this level are typically quantified using high-level standard factors, which may be based upon the assumption that emissions for a specific asset/venture are similar to those for a comparable asset/venture for which more data is available.

## OGMP Level 2 - Emissions category level

Reporting at OGMP 2.0 Level 2 involves the reporting of methane emissions based upon 5 different emission categories (as defined by the IOGP) for upstream:

- Venting (i.e. planned releases of gas to the atmosphere as a result of process design)
- Fugitive losses (i.e. unintentional releases to the atmosphere resulting from leaking equipment)
- Flaring (i.e. the unburned fraction)
- Energy / Combustion (i.e. the unburned fraction)
- Other / Unspecified (i.e. for emission events or sources which do not align with one of the other 4 categories)

For mid- and down-stream the 3 categories are:

- Fugitive losses
  - Leaks from connections
  - Tightness failure

- Permeation
- Venting
  - Operational emissions
    - Purging/venting for works, commissioning and decommissioning
    - Regular emissions of technical devices
    - Starts & stops
  - Incidents
- Incomplete combustion

Emissions reported in each of these categories are typically quantified using generic emission factors, though more advance forms of quantification may also be used.

Each emissions category is conceptually different from the others, but a category may contain multiple emission source types. For example, Energy / Combustion (power and heat generation) includes emissions from multiple sources, including turbines, engines and boilers.

### OGMP Levels 3, 4 and 5 - Emission source level reporting (Levels 3 & 4) and site-level reporting (Level 5)

The highest OGMP 2.0 reporting levels (3, 4 and 5) all involve reporting at the individual source level. Source relevance will vary from asset to asset. However, where relevant, emissions shall be allocated to individual source types. Examples of individual source types are those listed as “core” sources under OGMP 1.0. The OGMP 2.0 reporting template includes many of the most prevalent and significant source types typically found in the oil and gas industry (e.g. natural gas driven pneumatic controllers and pumps, fugitive component and equipment leaks, unstabilised hydrocarbon liquid storage tanks).

The differences between these three OGMP 2.0 reporting levels (3, 4 and 5) are therefore not related to the level at which emissions are reported, but rather the way in which the estimation is undertaken at the source level, and the degree to which these estimates are further substantiated.

For level 4 (source-level), which may utilize measurement as the basis for source-level quantification, and level 5 (site-level), which requires estimates based on measurements, companies should document and provide enough information to demonstrate that the sampling used to estimate emissions is representative of the population of sources and sites they are characterizing.

A key challenge toward meaningful site level reporting is the development of technologies to reasonably provide a complete and accurate overview of reporting unit methane emissions representative of the whole reporting period. While this challenge will be short lived as technologies become proven, the wide use of emerging site-level methane sensing technologies to deliver desired Level 4 and 5 reporting in the initial few years may prove unviable or grossly infeasible broadly or for specific reporting units given potential challenges that may arise and cannot adequately be managed until more about the technologies is discovered (e.g. technology limitations, security challenges, regulatory hurdles, trade compliance issues, etc.), despite companies acting in good faith to identify and commercialize these technologies.

### OGMP Level 3 – (generic EFs for individual source types)

Reporting at OGMP 2.0 Level 3 involves the estimation of asset-level emissions through the use of generic, but source-specific emission factors (EFs) for all sources. Examples of publications containing relevant EFs include OGMP Technical Guidance Documents, the US EPA’s Natural Gas Star Program, etc. While some of the generic emission factors referenced in the IPCC’s “Tier 1 emission factors for fugitive emissions” may be relevant for quantification at OGMP reporting level 3, it is important to note that IPCC Tier 1 quantification does not require quantification at the same source level granularity as required under OGMP 2.0 reporting level 3. For this reason, OGMP2.0 reporting level 3 and IPCC Tier 1 should not be viewed as directly compatible.

### OGMP Level 4 – (specific EFs and AFs for individual sources)

Reporting at this level may involve the use of source-level measurement and sampling as the basis for establishing specific EFs and activity factors (AFs) used for emissions estimation. The use of other source type specific quantification methodologies such as simulation tools and detailed engineering calculations (e.g. as referenced in existing OGMP TGDs) may be used where appropriate.

Reporting at this level shall be done for all material sources in line with the definition included in section 4.5.

### OGMP Level 5 – (specific EFs and AFs for individual sources + site-level measurement)

In addition to the requirements of OGMP 2.0 reporting level 4, OGMP 2.0 reporting level 5 necessitates the use of complementary site-level measurements. These site-level measurements are intended to reconcile source- and site-level emissions estimates, providing improved confidence in reported emissions. In those cases where a company can demonstrate that site-level measurement has been conducted for a statistically representative sample of similar populations (within one asset or across assets), all relevant assets may claim reporting at level 5.

#### 4.4.1 Reporting template

**Principles:**

1. The OGMP2 .0 template for upstream reporting is based on the OGCI template (itself closely derived from the original OGMP template), but expanded for the requirements set out above.
2. The OGMP 2.0 template for mid and downstream reporting is based on the Marcogaz methodology.

## 4.5 Materiality

### Principles:

1. The materiality rules are a mechanism for focusing OGMP member company efforts on the biggest opportunities from the perspective of reducing methane emissions.
2. There is a choice in materiality between prioritising joint ventures where the cumulative influence of OGMP members is large and the absolute level of emissions reduction potential. Joint venture equity can be a rough proxy of influence.
3. There is an intent to prioritise those ventures with the highest methane emission intensity

Materiality in this context refers to the significance of emissions for assets in terms of total emissions.

Assets within non-operated joint ventures where the company has a share in the joint venture of less than 5% equity are not considered material. For all operated assets and non-operated assets with higher equity than 5% the following applies.

At portfolio level: All material assets are ranked in terms of absolute emissions per asset. This step requires that emissions from operated assets are estimated at least at level 3. For non-operated assets, emissions should be estimated at the best available level (preferably level 3, but lower levels would also be acceptable). All assets that account for 95% of total emissions for a given operator are considered material. For purposes of this ranking we consider total emissions from each asset without accounting for equity (as described in section 4.2.1, for reporting purposes only the equity share of emissions are attributed to a given operator). The subset of assets that account for less than 5% of emissions can be considered as immaterial because they have a significantly small contribution to total emissions from a given operator. Thus, emissions from this subset of assets is still reported but not required to get to level 4 and 5. Should assets outside of scope of reporting become in scope due to changes in the company portfolio over time, the company will have the same pathway to gold standard with respect to those assets as a new company joining OGMP as described in section 4.2.2.

The application of materiality will be reviewed periodically, based on additional emission data that becomes available and any changes in assets.

## 4.6 Data Aggregation for External reporting & Analysis

### Principles:

1. It is planned that UNEP, within the scope of its regulations and rules, will establish an International Methane Emissions Observatory (the "Observatory") to process and aggregate methane data.
2. It is proposed that data reported into OGMP 2.0 will be made available to the Observatory on the same basis as is set out in this Framework.
3. The Observatory will be scoped by governments and funded with the aim of providing a clearinghouse service and adding value by cross checking data (including OGMP 2.0 data) with science studies, country reporting and new data sources such as satellite measurements. It is expected to issue an

independent commentary on the state of reporting and include this in its management of science studies and country interactions.

4. The Observatory will be funded by governments. Other stakeholders will be engaged as appropriate.

A UNEP **International Methane Emissions Observatory**, in development, will endeavor to maintain a global estimate of overall methane emissions, but at a minimum will aggregate company OGMP 2.0 data. Data reported into OGMP 2.0 will be made available to the Observatory for aggregation as set out in this Framework. The Observatory will manage that data in accordance with the provisions set out in the OGMP Memorandum of Understanding and this Framework.

With respect to OGMP 2.0 data, the intention is that the International Methane Emissions Observatory:

1. Aggregates the confidential core source data according to appropriate statistical methods, publishing a section of the annual report on the state of methane emissions based on OGMP 2.0 reported data.
2. With similar scientific basis and statistical rigour, aggregates and reports available data from parties outside of the OGMP (e.g. satellite data) which may add insights to OGMP reported emissions.
3. Independently corroborates company reported methane data, and where data inconsistencies and methodological shortcomings are observed, works with the company to resolve data discrepancies. This would include the scientific evaluation of the accuracy of emission estimates based on independent observations such as field studies and satellite data. Where datasets are inconsistent suggesting reporting inconsistencies, the Observatory will work with OGMP 2.0 companies toward an aligned understanding of their company emissions in accordance with the provisions in the OGMP MOU.
4. Maintains data aggregation and analysis methodologies in line with scientific and statistical good practice to ensure a high level of accuracy of emission estimates.
5. Publishes aggregated company reporting by core source and by Level (1-5), distinct between operated and non-operated ventures — as well as the progress towards announced targets.
6. Ensures data from OGMP 2.0 companies are appropriately disclosed as per the disclosure provisions within this Framework, the OGMP MOU and relevant competition law requirements, including ensuring both gas production or sales data as well as asset and/or country level emissions data shall not be disclosed or identifiable in the public analysis.

Some operator companies (i.e. non-OGMP member companies as partners in NOVs) may not want or be permitted under relevant agreements to disclose source or individual asset emissions in the public domain. In these cases, the Observatory will collect the data for company aggregation purposes, but it will remain strictly confidential.

In case major discrepancies are identified between sources (e.g. country and facility data or different owners of a facility), the Observatory will initiate action towards reconciliation of data. Where reconciliation is not achieved, the Observatory will consider other actions it can take to confirm emissions, including the initiation of independent measurements.

## 5 Confidentiality

1. All information and data supplied by member companies to UNEP in connection with the “OGMP 2.0 Framework” shall be kept confidential and not disclosed to third parties subject to points 2 and 3 below.
2. UNEP may publish or disclose information consolidated in accordance with Section 4.6, provided that member companies will have a reasonable opportunity to review and raise comments prior to the publication on the information intended for publication.
3. UNEP may disclose information or data received by member companies to a legal entity with which it is under common control; as well as with a third party for the sole purpose of consolidating and or analysing such information or data, on conclusion of an undertaking of confidentiality from such third party at least as strict as the provisions of this Section. UNEP should inform the OGMP Steering Group of the signature of any agreement with third parties or the sharing of data with legal entity under common control and provide the OGMP Steering Group with the confidentiality clause of such agreements. For UNEP, a principal or subsidiary organ of the United Nations established in accordance with the Charter of the United Nations shall be deemed to be a legal entity under common control.

## 6 Governance

The governing body of the Oil and Gas Methane Partnership will be the OGMP Steering Group. All OGMP members will be members of the Steering Group. The current non-company members of the OGMP Steering Group are: the European Commission, the United Kingdom, the United Nations Environment Programme, and the Environmental Defense Fund.

Changes to the Framework document, including reporting, will require the approval of the Steering Group. All decisions of the Steering Group will be made by consensus defined as the absence of any stated objections.

The Steering Group will determine additional aspects of the Partnership governance structure, including its own procedures. Any changes in participation on the Steering Group will be decided by the Steering Group. The Steering Group will meet in-person at least once a year.