UN environment programme | International Methane Emissions Observatory

Oil and Gas Methane Partnership 2.0 Level 5 Verification Guidance

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OGMP 2.0 Level 5 Verification Guidance

Table of Contents

1. **Introduction** 2
2. **Scope, verification objectives and verification criteria** 3
3. **Verification approach** 8
4. **Level 5 conformance checklist - Reconciliation and Level 5 estimate guidance** 10
5. **Verifier assessment template** 11

Appendix 1. Conformance checklist – Reconciliation and Level 5 estimate guidance 13
Appendix 2. Verifier assessment template 28
Appendix 3– Main gaps between OGMP 2.0 Level 5 and EU MR requirement 29
Appendix 4 – References and applicable documents 31

1. Introduction

Background

The Oil and Gas Methane Partnership OGMP 2.0 is the United Nations Environment Programme's comprehensive, measurement-based international framework for methane emissions measurement and reporting in the oil and gas sector. The OGMP 2.0 framework is built around a progressive reporting system that guides companies from consolidated, generic factors-based reporting (Levels 1 to 3) to source-specific, measurement-based quantification (Level 4), and ultimately full reconciliation with site-level measurement (Level 5). This structured progression ensures continuous improvement in data accuracy and supports credible methane abatement planning.

OGMP 2.0 has become a central reference point in global methane policy. It is explicitly cited in the EU Methane Strategy and serves as the one of basis for the EU Regulation on reducing methane emissions in the energy sector (EU/2024/1787), which entered into force on 4 August 2024. Governments worldwide are increasingly looking to OGMP 2.0 as the model for national methane MRV frameworks.

In 2026, the partnership added several new documents and updated existing ones, reflecting real implementation experience and member feedback. These materials clarify reporting requirements, address emerging technical challenges and provide pragmatic, segment-specific solutions.

As OGMP 2.0 does not include formal verification mechanisms and in light of the growing relevance of the framework, the International Methane Emissions Observatory IMEO developed this document to provide enhanced guidance for third-party verification. Building on approved OGMP 2.0 documentation, it aims to support verifiers in assessing conformity with Level 5 reporting requirements.

Purpose of the guidance

This document is intended to provide the technical elements that a third-party verifier should review to assess conformity with the OGMP 2.0 framework and technical guidance for Level 5 monitoring and reporting under either reasonable or limited assurance level, for a given oil and gas asset and a given reporting year defined as the period from January 1st to December 31st.

This document has been developed by IMEO, in alignment with the Technical Guidance Documents (TGDs) jointly developed and approved for use by the OGMP 2.0 Partnership. It also draws on the experience of the OGMP 2.0 technical staff gained through the review of company-member implementation plans and evaluation of submitted OGMP 2.0 reports.

The scope of this document excludes the verification process, including the overarching verification framework, the verification methodologies, and competence requirements. These are already well established under ISO 17029, ISO 14064:3, ISO 14065 and ISO14066 and also in various independent initiatives. Instead, this document is intended to complement these and other established international verification and assurance standards by providing methane-specific technical considerations that should be verified to demonstrate conformance with OGMP 2.0 Level 5, whether as part of a broader GHG verification process, or as a standalone exercise to meet regulatory, voluntary or corporate requirements for robust and verifiable methane emission measurements. The verification body remains responsible for determining the nature, timing and extent of verification procedures, including use of this guidance, necessary to support its conclusion in accordance with the applicable verification or assurance standard.

This guidance can also be considered as practical complement of [future] ISO 25624:1 2026 [1]and CEN/TC 234/WG 14.[2]

Intended users

This guidance is intended for use by

- OGMP 2.0 company-members seeking third-party verification and confirmation of conformance with the OGMP 2.0 Level 5 reporting standard under voluntary or regulatory standards; and
- by third-party verifiers conducting verification of OGMP 2.0 Level 5 reporting data for regulatory or voluntary programs.

This document outlines the requirements for reaching Level 5 reporting as defined by the OGMP 2.0 Partnership. Operators are strongly encouraged to use this guidance as part of an OGMP 2.0 membership, or to consider joining the partnership beforehand, in order to benefit fully from the program, and ensure its most effective application.

Limitation of use and reliance

This document outlines the requirements for reaching Level 5 reporting as defined by the OGMP 2.0 Partnership. Operators are strongly encouraged to use this guidance as part of an OGMP 2.0 membership, or to consider joining the partnership beforehand, in order to benefit fully from the program, and ensure its most effective application.

This guidance is not intended to replace applicable laws or regulations, OGMP 2.0 TGDs, accreditation requirements, contractual obligations, or recognized verification and assurance standards, including ISO/IEC 17029, ISO 14064-3, ISO 14065 and ISO 14066. In the event of any inconsistency, the applicable legal, regulatory, accreditation or normative requirement takes precedence.

The checklists, procedures and examples of evidence contained in this guidance are illustrative and non-exhaustive. Their use does not, by itself, provide sufficient evidence to support a verification conclusion or demonstrate conformity with OGMP 2.0 Level 5. The verification body remains solely responsible for determining the competence of the verification team and the nature, timing and extent of verification activities necessary to obtain sufficient and appropriate evidence and support its conclusion at the applicable level of assurance.

This guidance reflects the OGMP 2.0 framework and technical documentation available as of its stated publication date. Users are responsible for confirming that they are applying the most recent applicable requirements and for considering subsequent revisions, interpretations and jurisdiction-specific requirements.

2. Scope, verification objectives and verification criteria

Scope of application

The verification scope covers the operator's methane reporting system for a given oil and gas asset being assessed for conformance with OGMP 2.0 Level 5 reporting within a defined calendar year.

Conformance of an asset to OGMP 2.0 Level 5 reporting includes the review of:

- Asset-level materiality assessment as defined in the General Principles TGD [1]
- Level 4 reporting of material sources and Level 3 reporting for non-material sources,

[1] *Methane emissions in upstream oil and gas operations — Part 1: Quantification*

[2] *CEN/TC 234/WG 14 - Methane emissions*

- Site-level measurement(s), reconciliation process and outcome and Level 5 inventory determination;
- Or risk-based alternative Level 5 pathways when used for transmission systems or distribution grids,
- Uncertainty assessment (qualitative or quantitative) of the Level 5 inventory.

This document applies regardless of asset type, operating environment, or segment of the value chain.

The guidance does not assess company-wide performance or portfolio-level status, except where such elements directly affect the determination of asset-level compliance.

Asset definition
Under OGMP 2.0, the term "asset" does not prescribe a specific level of operational aggregation but should represent a logical business or operational unit (e.g., individual processing plants, gathering facilities, offshore platforms, producing basins, regional asset groups, LNG operations, or pipeline networks and associated infrastructure). The level of definition may be determined based on the following criteria:

- All facilities or sites within the asset participate in the programme (e.g., multiple production batteries within the same sub-region may be grouped into a single operation/asset).
- An asset should be smaller than a country and may comprise a single site/facility or a group of sites/facilities.

Further details regarding asset definition can be found in the Guidance for upstream template [1] and Guidance for midstream and downstream template [2].

Verification objective

The purpose of this guidance is to provide necessary information to a third-party verifier so that they may determine whether the asset meets all applicable requirements necessary to be considered in conformance with OGMP 2.0 Level 5 reporting.

In case Level 5 verification is carried as part of a larger GHG verification process as defined in ISO 14064-3, the verifier will:

- Issue an opinion on GHG statement for the asset, including the reported methane emissions inventory, and
- Issue a verification's opinion on the asset's conformance with OGMP 2.0 Level 5 reporting requirements for methane emissions.

Consequently, a non-conformity in the frame of this guidance is defined as any finding preventing a positive Level 5 determination.

Examples include but may not be limited to:

- Asset definition misaligned with the TGD's,
- Inappropriate methods used for Level 4 quantification,
- Missing sources within the inventory,
- Absence of site-level measurements on the asset - or on a representative sample of assets,
- Absence of or incomplete reconciliation assessment
- Absence of root causes assessment for discrepancies between source- and site-level quantification
- Lack of an uncertainty assessment, either qualitative or quantitative.
- Failing to produce a reconciled Level 5 inventory as defined in the next section
- Insufficiently low site-level technology detection threshold
- Inability to trace reported values to supporting documentation

The outcome of the verification process described in this document is binary:

- **Successful verification:**
  - **For a reasonable level of assurance:** Asset conforms to OGMP 2.0 Level 5 –based on verification activities including the elements listed in the conformance checklist and associated TGDs, all applicable OGMP 2.0 Level 5 requirements have been satisfactorily demonstrated to a reasonable assurance level.
  - **For a limited level of assurance**: based on the verification activities including requirements listed in the conformance checklist and associated TGDs, nothing has come to the attention of the verifier that causes to believe that the asset does not conform with OGMP 2.0 Level 5 reporting.

- **Unsuccessful verification: Asset does not conform to OGMP 2.0 Level 5** – based on the verification activities including requirements listed in the conformance checklist and associated TGDs, one or more OGMP 2.0 Level 5 requirements have not been satisfactorily demonstrated to a reasonable /or to a limited assurance level.

Verification criteria: OGMP 2.0 Level 5

Level 5 represents the best estimate of an asset's emissions, derived from its source-level inventory quantified in accordance with the relevant Technical Guidance Documents and enriched by insights gained from site-level measurements following a reconciliation exercise.

Upstream segment

OGMP 2.0 Level 5 is defined in the OGMP reporting Framework [3], while site-level measurement and reconciliation are further detailed in the Uncertainty and Reconciliation TGD [4].

For the upstream segment, Level 5 can be achieved under two pathways:

- Level 5 Pathway 1 is achieved when there is a reasonable agreement between the sum-of-source estimates (Level 4) and site level measurements at comparable spatial and temporal scales, as described in the Uncertainty and Reconciliation TGD [4].
- Level 5 Pathway 2 can be achieved in the case where discrepancies are identified between source-level inventory and site-level measurement(s) at comparable spatial and temporal scales, under the following conditions:
  - If these discrepancies can be identified, quantified and used to derive a Level 5 estimate and to adjust the Level 4 inventory where applicable,
  - If the discrepancies can be understood and integrated into the Level 5 estimates, and the member presents a credible plan to integrate the learnings into the site-level measurement and/or the source-level inventory over the following reporting year, and/or to mitigate them where applicable.

In both cases—and more commonly under Pathway 2—the source-level inventory and the Level 5 estimate may diverge, with discrepancies potentially reflecting errors or gaps in one or both the source-level inventory and the site-level measurement that may exceed predefined materiality threshold as defined in ISO 14064:3. Nevertheless, the asset would still be regarded as in conformance with Level 5, provided the errors or gaps are appropriately acknowledged and integrated into the Level 5 inventory.

Consequently, the document refrains from proposing a quantitative materiality threshold for agreement between the two inventories as prescribed in ISO 14064-3, and where materiality is defined as "*Concept that individual misstatements or the aggregation of misstatements could influence the intended users' decision*".

Midstream and downstream segments

For the mid/downstream segments, Level 5 can be achieved under the two pathways described in the prior *Upstream segment* section, and under a risk-based alternative pathway for specific assets type.
For some specific cases in the Midstream Segment[3] (such as transmission systems) and the Downstream Segment (such as distribution grids), risk-based alternative pathways to Level 5 have been defined in dedicated technical guidance documentation (Methane emissions from natural gas transmission system [5] and Distribution grid [6]). Recognizing the specificities of these asset types, the alternative pathways allow assets to achieve Level 5 without necessarily conducting site-level measurements or reconciliation.

Verification principles

Evidence-based verification

Verification should be based on objective and documented evidence sufficient to support a compliance conclusion. Each Verification and Validation Body (VVB) may have its own procedures and protocols consistent with ISO 17029/14064:3 to be applied for verification against the reporting criteria required under OGMP 2.0 Level 5.

The quantity, depth and extent of evidence to be provided by the operator for mapping against OGMP 2.0 framework varies depending on whether the verification is carried out under limited assurance or reasonable assurance.

Elements	Examples of evidence that may support limited assurance	Examples of more extensive evidence that may support reasonable assurance
Quantification approach description	High level description in implementation plans or in alternative equivalent approaches such as Standard Operating Procedures. Include inquiry, testing, recalculation and analytical review for selected sources, consistent with ISO 14064:3.	Operator required to produce detailed methodology and evidence. Include inquiry, testing, recalculation and analytical review for a larger sample of selected sources, consistent with ISO 14064:3.
Site-level and reconciliation	Implementation plans description and supporting documentation. Sampled recalculations or reports verification.	May include a more exhaustive verification of service providers reports and raw data, and a larger sample of recalculation of reconciliation inventories
Level 5 calculation	Implementation plans description of the calculation steps and justification for the values selected. May include sampled inventory calculations.	May include more exhaustive calculation of the inventory with detailed verification of the assumptions used.
Uncertainties	Conceptual explanation acceptable	Documented and reproducible.

[3] *A risk-based approach alternative pathway to Level 5 for LNG ships will also be reflected in the next version of this document.*

To ensure consistency in the verification of the OGMP 2.0 Level 5 reports, the following minimum principles should be applied by the verifier:

- **Consistency with OGMP Reporting Framework, TGDs and other technical documents as described in the "Verification Criteria" section above, and with Implementation plans where available**
    - Reported approaches and supporting documentation should be assessed against applicable OGMP 2.0 TGD issued by OGMP 2.0 listed in appendix 4. Appendix 4 also refers to two technical documents ([8] and [9]) that, while not being approved through the OGMP 2.0 Steering Group approval process, may still bring additional clarity to Level 5 reporting.
    - If the asset under verification has previously been reported to OGMP 2.0, the relevant sections of the implementation plans—together with UNEP's comments and feedback—may be reviewed in advance of the verification process as part of the risk assessment.

- **Data availability and completeness: Ensure all reported emissions have complete, traceable data fields**
    - Defined OGMP 2.0 inventory boundaries.
    - Each emission reported should come with a complete inventory of required data elements (asset, source category, rate, timestamp, units, metadata) and each field should be traced to its source.
    - Source inventory completeness for the defined asset, to be checked against other regulatory or voluntary inventories where available.
    - Level 3 and Level 4 methods should be documented and justified.
- **Data collection and management: Ensure completeness and adequacy of the data collection procedures**
    - Internal systems to support the calculation should have internal control and validation systems in place to demonstrate emissions data integrity and reproducibility,
    - Contingency plans and procedures when measurements can't be completed (e.g. weather preventing data collection) or in case of telemetry failures should be verified, such plans should be conservative and avoid pre-defined bias.
    - Calibration methods should be consistent with Original Equipment Manufacturer (OEM) recommendations and/or industry practices.
    - Data collection and management should be consistent with the approved implementation plans where available, and or with the operator's internal procedures.
- **Sufficiency of evidence**
    - Evidence should be sufficient, appropriate, traceable and independently verifiable to support a level 5 conformance conclusion, either under a Limited Assurance or a Reasonable Assurance Scheme.
- **Internal controls**
    - Internal controls related to completeness, accuracy and reconciliation should be reviewed (Example- company protocols, updates, approvals and final lock).
    - Internal controls should demonstrate that data schemas, unit conversions and data integrations are standardized, controlled and periodically tested.
- **Audit trail, traceability**
    - The data immutability should be evidenced.
    - The reproducibility of results from raw inputs to transformation to eventual Level 5 inventories may be sampled for verification.
    - Conclusions should be supported by evidence that can be traced to underlying data, calculations, methodologies, and supporting documentation.

- **Professional judgement**
  Verifiers should apply professional judgement when evaluating the reliability, completeness, and relevance of evidence and determining whether it supports Level 5 alignment.

3. Verification approach

Risk assessment

The objective of the risk assessment is to identify the likelihood of significant misstatements or non-conformities with Level 5 reporting requirements and, consequently, to determine the nature and extent of evidence gathering activities. For OGMP 2.0 members, UNEP's assessment of historical implementation plans, as well as the implementation plan applicable to the reporting year where available, should constitute a key input to the risk assessment process. Where an asset has already been awarded Level 5 status by OGMP 2.0, the risk associated with the reconciliation process described in item F of Appendix 1 may be considered lower. In such cases, verification activities may place greater emphasis on evaluating the evidence supporting the Level 5 inventory, including measurement data, calculation methodologies, internal controls, data management processes, and traceability of reported emissions, while reducing the level of scrutiny applied to the reconciliation assessment already approved by UNEP.

Assessment of OGMP 2.0 asset-level materiality

The asset-level materiality assessment as defined in OGMP 2.0 is used to determine which sources of emissions are material at that asset. Material sources are the sources that collectively account for 90% or more of an asset's annual emissions and should be reported according to Level 4 methods. The remaining 10% of the asset's emissions may be reported at Level 3.

The verifier should ensure that an asset-level materiality was defined for the asset with a source-level inventory at Level 3 as a minimum. Each source contribution to total asset emissions should be expressed as a percentage, calculated by dividing the source's emissions by the asset's overall emissions. The verifier should check that sources collectively accounting for 90% or more of the asset's total emissions are classified as material and are reported at Level 4. The remaining sources may be reported at Level 3.

Where duly justified, a lower materiality threshold may be accepted in place of the standard 90% for Level 4, as described in the General Principles TGD [7]. Such justifications may include material sources which are expected to become non-material in future reporting years due to planned mitigation activities and/or previously non-material sources becoming material in the current reporting year and requiring more time to reach Level 4.

In the following cases, the partnership has historically allowed reconciliations to be conducted with a Level 4 coverage lower than 90%:

- On an asset previously recognized at Level 4 and where sources have been mitigated, the remaining sources that were previously non-material and quantified at Level 3, can become material, and the Level 4 coverage drop significantly.
- When an asset is reported at Level 4 for the first time, both the emissions magnitude and breakdown can change significantly. As a result, sources previously considered material may no longer qualify, while others once deemed non-material may emerge as predominant.

In such cases, where reconciliation meets the criteria of Pathway 1 or Pathway 2, the asset will be recognized at Level 5. If the reconciliation is not successful, the reporting level of the asset will be the weighted average of the reporting level of the sources (Level 3 or Level 4).

More details about the asset-level materiality requirement can be found in the Uncertainty and Reconciliation TGD [4].

Assessment of source-level quantification

For source-level quantification, verifiers should assess conformity with the methodologies and approaches described in the applicable OGMP 2.0 TGDs for both upstream and midstream/downstream operations, or that the methodologies used deliver similar or enhanced levels of data quality, as stated in the General Principles TGD [8]. The applicable TGDs ~~and technical document~~ are listed in Appendix 4. Two additional documents have been listed in the appendix: The OGMP 2.0 Technical Clarification: Use of Site-level Technology and Acceptable Level 4 Methods [9] and Understanding Reconciliation and Level 5 Reporting. [7]. These two documents were developed in collaboration with OGMP 2.0 members and although have not been subject to the steering group approval process, they may provide greater clarity and in reconciliation and Level 5 reporting.

Verifiers shall assess that

- **Material sources** reporting is performed against **OGMP 2.0 Level 4 requirements** as defined in the relevant TGDs,
- **Non-material sources** reporting is performed against **OGMP 2.0 Level 3 requirements** as defined in the relevant TGDs

ensuring that:

- The selected quantification methodology is consistent with OGMP 2.0 requirements
- All required documentation is available (e.g., written procedures and methodologies, calculation files)
- Supporting evidence is complete and traceable
- Implementation of the methodology is consistent with documented procedures.

It is common in environmental measurement practices to allow for grouping and sampling when the emission sources are similar in design and operating conditions. Such approaches ensure sufficient but reasonable deployment of resources while also producing robust Level 4 quantification of emissions representing the population of emission sources.

Where a sampling strategy was used for source-level quantification, the verifier shall assess the sample size, its representativeness and ensure that the statistical method to scale up the results is transparent, documented and consistent with relevant standards. Key requirements and considerations for grouping and sampling are detailed in the Uncertainty and Reconciliation TGD [4].

Assessment of additional level 5 requirements

This guidance focuses primarily on the additional requirements needed to demonstrate effective Level 5 reporting, namely:

- Site-level measurements
- Inventory uncertainty assessment
- Reconciliation methodologies
- Reconciliation outcomes and Level 5 estimate determination
- Appropriate integration of source-level inventories and/or site-level observations in the Level 5 estimate

To support these assessments, the guidance provides:

- A Reconciliation and Level 5 conformance checklist, containing technical assessment criteria and evidence requirements for each Level 5 element (see Appendix 1)
- An optional verifier assessment template, to be completed during the verification process and used to document findings and conclusions (see Appendix 2)

Sources of evidence

Verification should be based on a combination of documentary evidence, analyses, and corroborating information gathered throughout the assessment. The objective is to obtain sufficient evidence to determine whether Level 5 requirements have been met. Typical sources of evidence include:

- Reporting documentation (e.g., OGMP 2.0 submissions where available, asset reports, methodologies)
- Measurement reports and supporting datasets
- Calculation files, models, and inventories
- Reconciliation analyses and supporting assessments
- Interviews with relevant personnel
- Site visit observations where required, and operational logs/records including intermittent events such as malfunctions/upsets, blowdowns/venting and other stochastics events
- Internal procedures, protocols, and management system documentation
- Previous technical feedback from OGMP 2.0 staff, verification reports and follow-up actions
- Emissions disclosed in publicly available datasets for the covered reporting year, and data from peer-reviewed studies, to ensure completeness of the inventory.

The relevance, reliability, and sufficiency of each source should be considered when forming a verification conclusion. Where evidence sources are inconsistent, the verifier should investigate the inconsistency and assess the relevance and reliability of available evidence, including temporal and spatial comparability, measurement uncertainty, detection limits, operating conditions, methodological transparency and independence of the source. Unresolved inconsistencies that could affect the Level 5 determination should be documented and considered in the verifier's conclusion.

4. Level 5 conformance checklist - Reconciliation and Level 5 estimate guidance

Purpose

The purpose of the checklist is to provide a structured framework for assessing whether sufficient evidence exists to demonstrate conformance with OGMP 2.0 Level 5 requirements. It supports a consistent, transparent, and evidence-based verification process by identifying the key areas that should be reviewed and the types of evidence that may be examined. The checklist is intended as a guide for verifiers and can be applied using professional judgement, taking into account the specific circumstances, methodologies, and complexity of the asset being assessed. The checklist is illustrative and non-exhaustive, verifiers remain responsible for determining appropriate audit procedures.

Checklist structure

The audit criteria checklist is structured as follows:

Field	Description
Item	Main element to be assessed. May include subcategories representing different methodological approaches.
Statement	Description of the requirement that must be satisfied.
Evidence to be checked	Non-exhaustive list of evidence expected to support conformance with the requirement. Limited assurance and reasonable assurance requirements are presented separately. The aim of this item is not to be substituted to verifier's standard procedures, but rather to complement them by drawing the verifier's attention to key evidence from an OGMP 2.0 perspective.

Assessment Outcome	As defined in section 2: Successful verification: - For a reasonable assurance level: Asset conforms to OGMP 2.0 - For a limited assurance Level: nothing has come to the attention of the verifier that causes to believe that the asset does not conform with OGMP 2.0 Level 5 reporting. Unsuccessful verification: asset does not conform to OGMP 2.0 Level 5

The checklist is intended to provide a consistent basis for evaluating completeness, technical adequacy, and traceability of Level 5 reporting elements.

Where applicable, evidence highlighted in blue within the checklist may be verified directly during (optional) site visits, if these are deemed relevant.

The audit criteria checklist is available in Appendix 1.

5. Verifier assessment template

Purpose

The verifier assessment template provides a structured format for documenting the evidence reviewed, assessment performed, findings identified, and conclusions reached during the verification process. Its purpose is to ensure a consistent, transparent, and auditable evaluation of Level 5 conformance across different assets and verification teams.

For each assessment area, the template should enable the verifier to:

- Record the evidence reviewed and its source.
- Document the assessment performed against the applicable verification criteria.
- Identify any gaps, inconsistencies, or non-conformities.
- Capture the rationale supporting the verifier's conclusion.
- Assign a compliance outcome (e.g., conform, non-conform, not applicable).
- Document recommendations, corrective actions, or follow-up items where relevant.

The completed template should provide a clear audit trail demonstrating how the verification conclusion was reached and the evidence on which it was based.

This template is intended as a support tool and is not mandatory. Verification and Validation Bodies (VVBs) may apply their own procedures and protocols and may use their preferred formats to document and record verification findings.

Template structure

The verifier assessment template is structured as follows:

Item	Main element being assessed, following the checklist.
Verification criteria	Requirement or expectation against which conformance is evaluated.
Example of evidence checked	Documentation, records, interviews, observations, and other evidence reviewed.
Verifier Assessment and Findings	Summary of assessment performed, evidence considered, observations, and justification for the conclusion.
Assessment Outcome	As defined in section 2: Successful verification: • For a reasonable assurance level: Asset conforms to OGMP 2.0 • For a limited assurance Level: nothing has come to the attention of the verifier that causes to believe that the asset does not conform with OGMP 2.0 Level 5 reporting. • Unsuccessful verification: asset does not conform to OGMP 2.0 Level 5

The verifier assessment template is available in Appendix 2.

Appendix 1. Conformance checklist – Reconciliation and Level 5 estimate guidance

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
A.	**Asset Definition**				
A.1	**Asset definition and boundaries**		Check that the asset definition is consistent with the Uncertainty and reconciliation TGD requirements	Asset description provided by the operator	Asset description provided by the operator.
B.	**Source-level inventory**				
B.1	**Source level inventory - Completeness**	**Exhaustivity of sources**	Ensure that the source inventory is complete	- OGMP implementation plans where available. - Verification of the main source of emissions through site-visits, interviews and inquiries. - Ensure consistency with sampled asset documentation, that may include P&IDs, leak registers, or operating procedures, or through site visits, interviews or inquiries.	- OGMP implementation plan where available. - Ensure consistency with a larger sample of asset documentation, that may include P&IDs, leak registers, or operating procedures or through site-visits and interviews or enquiries. - Perform comparison with similar sites. . - Ensure that all sources observed during the visit (if applicable) are included into the inventory.
B.2	**Source-level inventory – Methods and materiality**	**Source-Level categories**	Ensure that the sources are reported using the OGMP 2.0 categories defined in the Upstream Reporting Template [10] for the Upstream sector, and in the appropriate tab of the Mid and Downstream Reporting Template [11] for the midstream and downstream sectors.	- OGMP implementation plans where available. - Source inventory report covering all relevant categories. - Ensure appropriate source categorization in line with the applicable TGDs.	- OGMP implementation plan where available. - Source inventory report covering all relevant categories. - Cross verification with internal reports or emissions reported for regulatory compliance purposes. Gaps would have to be explained and justified by the operator. - Ensure appropriate source categorization in line with the applicable TGDs.
B.3		**Sources materiality assessment**	Check that the sources quantified at Level 4 cover at least 90% of the asset's emissions. If the Level 4 coverage is lower, check that a justification has been provided by the operator.	- OGMP2.0 asset-level materiality assessment where available - List of reported sources and associated emissions for the calendar year. - Description of the justification if less than 90% of the sources are reported at Level 4.	- OGMP2.0 asset-level materiality assessment where available - List of reported sources and associated emissions for the calendar year. - Documented justifications if less than 90% of the emissions were reported at Level 4.
B.4		**Sources Level methods conformance with OGMP 2.0 TGD**	Check that the methodologies used for Level 3 and Level 4 quantification are in-line with the requirements of the OGMP 2.0 TGDs	- OGMP implementation plan where available. - Description the quantification approach used for each source.	- OGMP implementation plan where available. - Details of each source quantification method such as equations, input data sources, activity data.

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
				- Details of source quantification methods such as calculation, input data sources or activity data for a sample of the material sources only. - Data trails verification and recalculation for sampled, material sources of emissions.	- Service providers reports including raw data and measurement conditions, when quantification was subcontracted. - Data trails verification and recalculation: check the consistency of the reported emissions with the declared quantification approach. - Verification of reported emissions on samples of daily or monthly reports where available and applicable, - Verification of the integrity of the main instrumentation used for quantification (if and where applicable) such as flowmeters, pressure and temperature gages, sampling points, and verification of the calibration and maintenance records for these pieces of equipment.
B.5		**Level 4 – sources grouping and sampling**	Where Level 4 quantification was performed on a sample of the source, check that: - The sources were grouped based on shared characteristics (such as make/model of component, operating status, process stream, or other criteria). - The sample size is in line with the requirements stated in the Uncertainty and Reconciliation TGD [4].	- OGMP implementation plan where available. - Description and justification of the grouping and sampling approach adopted. - Sampled documentation to justify the grouping.	- OGMP implementation plan where available. - Details of the sources grouped under a single category and justification for the grouping. - Datasheets, manufacturer documents or any other documentation that justifies the grouping.
C.	**Source-level inventory compilation for reconciliation**				
C.1	**Level 4 inventory compilation for reconciliation**	**Choice of reconciliation approach: instantaneous vs. annual reconciliation**	Instantaneous reconciliation compares the site-level measurement against an estimate of source-level Level 4 emissions at the specific time period of the site-level measurement campaign. This approach is recommended when a limited number of site-level measurements are carried, and/or when source-level data are available with a high temporal resolution. Annual reconciliation compares a site-level estimate that has been annualized with the annual Level 4 inventory. This approach is recommended when the number of site-level		

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
			measurement data available allows a representative estimate of annual emissions and/or when source-level data cannot be determined with sufficient granularity at the exact time of the site-level measurement. In the following two items, the verifier will check that the selected reconciliation is documented and justified based on elements including the characteristics of the asset, the nature and frequency of site-level measurement or the granularity and variability of the source-level emissions.		
C.1.a (1)		**Option A: instantaneous reconciliation:**	Check that the Level 4 inventory reflects operating conditions at the time of the site-level measurement, including: - Operating mode including load factors, - Real-time activity data where available – e.g., from flowmeters and in-line chromatographs - Any punctual or intermittent sources such as shutdowns, decompressions, start-ups, maintenance operations or annulus pressure releases. For steady, low-variability sources, annual average emissions, converted to annual values, may be acceptable if justified.	- OGMP implementation plan where available. - Justifying elements of the reconciliation approach selected. - Level 4 emissions data derived for the time and duration of each site-level measurement. - Verification of sampled original site-level measurement data including dates of measurement, and associated area covered to ensure reconciliation has been performed for every independently surveyed area.	- OGMP implementation plan where available. - Calculations (e.g., Excel files, raw input data, calculated results from software), ensuring data and time for the emissions calculated correspond to the date and time of the site-level measurement. - For any annualized low variability source, evidence of source stability and low variability - Verification of original site-level measurement data including dates of measurement, and associated area covered to ensure reconciliation has been performed for every independently surveyed area. - Real-time activity data, for sources monitored using telemetry such as pressure temperature transmitters or flowmeters. - Documentation to support the presence or absence of continuous and intermittent sources during each survey, including: o Operational logs o Record of all maintenance works at the site o Shutdowns. o Context for any source claimed to be intermittent
C.1.a (2)			Check how is the instantaneous emissions rate (e.g., hourly rate) determined for each emission source.		

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
C.1.b		**Option B: annualized reconciliation**	Confirm that the annual Level 4 inventory is complete and representative of the reconciliation unit (e.g., basin, asset, site, facility). It should include: - Annual estimate of all routine emissions, including continuous and intermittent sources - Annual estimate of emissions from abnormal conditions - Annual estimate of emissions below the detection threshold.	- OGMP implementation plan where available. - Justification for annual reconciliation, such as multiple site-level measurements and /or large population of sites. - Samples of site-level measurement reports including number of surveys and coverage. - Description of the assumptions for site-level measurement annualization.	- OGMP implementation plan where available. - Justification for annual reconciliation, such as multiple site-level measurements and /or large population of sites. - Site-level measurement reports including number of surveys and coverage - Details and assumptions for site-level measurement annualization, including for example operational data, ground follow-up investigations; or use of continuous measurement data.
D.	**Site-level measurement – Base Case**				
D.1	**Technology suitability**		Confirm that the selected site-level measurement method is capable of capturing most of the reconciliation unit (e.g., facility, site) emissions. The justification should consider elements such as: - Detection and quantification thresholds compared to site emissions profile - Controlled-release performance - Weather conditions - Site complexity - Compatibility with the site characteristics and environment at the time of measurement.	- OGMP implementation plan where available. - Technology datasheet, and description of technology performances including detection threshold, known limitations, and description of suitability with site nature, characteristics and environmental conditions at the time of the survey.	- OGMP Implementation plan where available - Thid party-controlled release test results performed by the technology provider, if available. - Documented minimum detection threshold, and operational limitation of the technology. - Calibration records of the technology or sensor used. - Verification of the environmental conditions at the time of the survey. - Justification of known technology limitations if present at site.
D.2	**Supporting measurement data** *If additional measurement is required, such as, wind speed or direction*		Check that accurate, site-specific supporting data were collected where needed to improve the reliability of site-level methane quantification.	- OGMP implementation plan where available. - Sampled records of supporting measurement data such as wind speed or temperature, geolocation. - Sampled calibration records of the sensors used for additional measurements	- OGMP implementation plan where available. - Records of supporting measurement data such as wind speed or temperature, geolocation. - Calibration records of the sensors used for additional measurements
D.3	**Spatial sampling approach** *If sampling occurred*		Verify that reconciliation units (e.g., sites, facilities) were grouped into appropriate like-system on the basis of their	- OGMP implementation plan where available.	- OGMP implementation plan where available.

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
		design, process, operations, age or other factors, in such a way that any findings on the sampled sites or facilities can be easily extrapolated to non-sampled sites or facilities. The sample within each category should be justified based on a risk-based approach considering population size, complexity, emissions distribution, emissions frequency, materiality and practical constraints.	- Rationale for adopting a sampling approach	- Justification of the sampling approach including: o Sampling methodology as per traceable standards/guidelines, category and criteria definitions. o Sample size to be compliant with the Uncertainty and Reconciliation TGD's requirements [4] o Grouping criteria within each like-system.
D.4	**Measurement frequency**	Confirm that site-level measurements are conducted at least once within the reporting year subject to verification, and compliant with the latest Uncertainty and Reconciliation TGD requirements [4]. **Given the contractual and logistical complexity of organizing site-level measurement campaigns, the OGMP partnership has historically accepted campaigns conducted as late as the first quarter following the reporting year subject to Gold Standard assessment. However, such site-level measurements may only be used once for the purpose of reconciliation.**	- OGMP implementation plan where available. - Dates of the site-level measurement(s), - Justification if campaign carried in the first quarter of the following year.	- OGMP implementation plan where available. - Original site-level measurement reports including dates of the surveys - If survey carried in the first quarter of the following year, documentation supporting the reason for the delay.
D.5	**Measurement temporal and spatial coverage**	- Spatial coverage: check that site-level measurement covered a representative fraction of the asset's emissions, in line with the uncertainty and reconciliation TGD [4] . - Temporal coverage: check that the measurement was carried during normal operating conditions; or that sufficient measurements were carried throughout the year to facilitate annual extrapolation.	- OGMP implementation plan where available. - Percentage of emissions present of the time of the survey that were covered, and/or percentage of assets covered by the survey. - Site-level measurement detailed report, including the spatial coverage of the survey.	- OGMP implementation plan where available. - Verification of the operating conditions and equipment in operation during the survey. - Site-level measurement detailed report, including the spatial coverage of the survey. For example, in case of drone measurement, verify that the drone curtains combined to wind speed and direction ensured to capture all relevant emissions from the asset. For aircraft surveys, ensure that the flights altitude was sufficient to capture targeted emissions above the stated detection threshold, and that the assets or sites covered are consistent with the requirements of the Uncertainty and Reconciliation TGDs [4].
D.6	**Measurement outcomes**	Check details and results from the site-level measurement campaign(s) If site-level measurement data is excluded from the reconciliation exercise, this exclusion should be justified	- OGMP implementation plan where available. - Summary of measurement results	- OGMP implementation plan where available. - Site-level measurement campaign report including:

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
			(examples: plume not captured entirely, unsuitable weather conditions affecting the result, plume from an off-site location).	- Justification for any excluded data. - Verification of sampled results in the site-level measurement campaign report.	○ Dates and coverage ○ Number of measurements ○ Measurement duration ○ Operational conditions during the campaign ○ Raw site-level measurement report, and any transformation of the data prior to use ○ Documented justification for exclusion of any results, such as adverse weather conditions, measurement equipment failure or interferences from other locations. ○ Emission rates quantification method.
E.	**Reconciliation process – Base case**				
E.1	**Scope of comparison**	**Temporal and spatial alignment**	Compare the Level 4 source-level inventory with site-level measurements over comparable temporal and spatial scales, for every independently surveyed area.	- OGMP implementation plan where available. - Supporting documentation describing the spatial and temporal basis for reconciliation. - Definition of reconciliation units, supported by site-level measurement sample checks.	- OGMP implementation plan where available. - Detailed site-level measurement results to support definition of the reconciliation units, - Verification that the source-level inventory data is properly derived at the time of the measurement using data historian, site-reports or other reporting tools, for each reconciliation unit. - For annual reconciliation, documented methodology for the site-level measurement annual extrapolation.
E.2		**Emission sources included in comparison**	- Define which emission sources are included in the comparison, considering detection thresholds, intermittency, plume behaviour and sources not emitting during the survey. Where sources are excluded from the comparison, document the rationale and reintegrate them into the final Level 5 estimate where appropriate.	- OGMP implementation plan where available. - Description of the sources included in and excluded from the reconciliation source-level inventory, and justification for exclusion.	- OGMP implementation plan where available. - Source mapping table: emission sources included in the comparison. - Documentation of sources not captured by site-level methods and the reason for exclusion.
E.3			- At dispersed facilities, or where the technology allows source or area segregation, reconciliation may be performed at the highest granular level available	- Documentation of operating context used for reconciliation, supported by operational data records. - OGMP implementation plan where available	- Documentation of operating context used for reconciliation, supported by operational data records. - OGMP implementation plan where available.

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
E.4.a	Temporal approach	**Selection of approach Option A: instantaneous reconciliation**	- Perform the comparison for the period during which the site-level measurement took place.	- OGMP implementation plan where available. - Time-matched site-level measurement records and source-level inventory data. - Reconciliation breakdown by reconciliation unit (e.g., asset, basin, unit or source, as relevant). - Sampled verification of site-level measurement estimates.	- OGMP implementation plan where available. - Time-matched site-level measurement records and source-level inventory data. - Reconciliation breakdown by reconciliation unit (e.g., asset, basin, unit or source, as relevant). - Verification of the site-level estimate calculation where multiple surveys are carried for a single reconciliation unit.
E.4.b		**Selection of approach Option B: annualized reconciliation**	- Annualize the site-level measurement results and compare them with the annual Level 4 inventory for the corresponding asset, basin or reconciliation unit. - The selected scale must reflect the operating context; for example, if only one operating mode was measured, reconciliation should focus on that mode rather than extrapolating directly to annual emissions.	- OGMP implementation plan where available. - Descriptive justification and appropriateness of the methodology used for annualization of site-level estimate, and sample of documentation supporting this justification.	- OGMP implementation plan where available. - Calculation details and assumptions of the methodology used to annualize site-level measurements. - Process data, site investigations or any other operating element supporting the assumptions used for annualization.
F. Reconciliation outcome – Base case					
F.1	**Assessment of reconciliation outcomes**		Check details and the results of the reconciliation exercise, either in tabular or diagrammatic forms. Verify the applicable reconciliation pathway as follows .	- OGMP implementation plan where available. - Results of the reconciliation exercise of the applicable reporting years. Explanation of significant variation from previous years' reconciliation - Samples of calculation sheets or methodology documentation.	- OGMP implementation plan where available. - Results of the reconciliation exercise of the applicable reporting years, and of previous reporting years where applicable. Explanation of significant variation from previous years' reconciliation, and verification of previous action plans execution. - Calculation sheets and methodology documentation.

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
F.2.a	Assessment for reconciliation outcome	**Level 5 Pathway 1**	Pathway 1 applies if the Source-level inventory and the site-level measurement are in reasonable agreement, as defined in the Uncertainty and reconciliation TGD. Agreement should not be only assessed based on overlapping uncertainty ranges, but should also take into consideration the magnitude of the difference between estimates or the probability of presence of compensating errors.	- OGMP implementation plan where available. - Reconciliation results at the highest available level of granularity. - Check that the central estimate of the Level 4 inventory used for reconciliation falls within the uncertainty range of the site-level estimate and that there is no evidence of material discrepancies requiring further investigation. Also refer to elements of verification in the uncertainty section	- OGMP implementation plan where available. - Reconciliation results at the highest available level of granularity. - Check that the central estimate of the Level 4 inventory used for reconciliation falls within the uncertainty range of the site-level estimate and that there is no evidence of material discrepancies requiring further investigation. Also refer to elements of verification in the uncertainty section - Verify the absolute difference between source- and site-level measurements and compare with previous reconciliation results to distinguish true repeatable discrepancies from differences arising from measurement or modelling limitations.

F.2.b		**Level 5 Pathway 2**	Pathway 2 applies when meaningful discrepancies are observed between the source-level inventory and the site-level measurement, but the operator:
			- Investigates the discrepancies, and is able to explain their origin, and
			  ○ Incorporates the learnings in the Level 5 estimates and in the source-level inventory,
			  ○ Or integrates the learnings into the Level 5 estimates and presents a credible plan to incorporate them into the source-level inventory or in the site-level measurement plans in the following reporting year, and/or to mitigate them where applicable.
				- OGMP implementation plan where available.
				- Documented investigation attributing the sources of discrepancies to one or more causes.
				- Justification of the methods and assumptions used to quantify and integrate the learnings in the source-level inventory if applicable, and into the annual Level 5 estimate.
				- If applicable, documented credible plan for integration of the learnings in the source-level inventory and/or site-level measurement plans in the following reporting year.
					- OGMP implementation plan where available.
					- Documented investigation attributing the sources of discrepancies to one or more causes. Supporting documents may include site-level results details, site-investigation results, operating parameters at the time of the survey, weather or environmental conditions possibly impacting the results.
					- Documented justification that discrepancies and learnings were adequately estimated or quantified and extrapolated to annual emissions based on documented activity data, and integrated in the Level 5 estimate.
					- Documented justification that discrepancies and learnings were adequately estimated or quantified, and integrated to the annual source-level inventory,
					- or verification of the submitted credible plans detailing any additional investigations to be carried within the next reporting cycle, the high-level planning of execution and the tools and methods that will be used to better identify or quantify the emissions.

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
	Level 4 Pathway 3	Pathway 3 applies when meaningful discrepancies are observed between the source-level inventory and the site-level measurement, and the operator - is unable to sufficiently explain the discrepancy, - or fails to incorporate all the learnings in the annual Level 5 estimate - or fails to present a credible plan to incorporate the learnings to the source-level inventory. **Note: Pathway 3 does not result in L5 and should be treated as non-conformity.**		
	Level 4 Pathway 4	Pathway 4 applies when the reconciliation process cannot be completed. Contributing factors may include, but are not limited to: - Site-level measurements with insufficient data quality or only partial emissions capture, - Adverse weather or environmental conditions preventing deployment or accurate quantification, - Equipment failures that hinder measurement or data recording. **Note: Pathway 4 does not result in L5 and should be treated as non-conformity.**		
F.3	**Level 5 estimate – Completeness and method consistency**	Check that the final Level 5 estimate is complete, including all the following elements: - Sources below the detection threshold; - Intermittent sources that were not present during the site-level measurement campaign; - Abnormal or non-routine emissions that were not present during the site-level measurement campaign; and - Any new sources found during the site-level measurement campaign. - Any adjustments to sources as highlighted by the reconciliation process, - Other learnings from the reconciliation exercise, with adequate and documented extrapolation to annual emissions where relevant. Check that the final Level 5 estimate is methodologically consistent with the reconciliation outcome, transparent and justified as the best estimate. The calculation should clearly explain whether the estimate is based on Level 4 data, site-level data or a hybrid approach.	- OGMP implementation plan where available. - Level 5 emissions estimate broken down to the lowest level of granularity available. - Documentation explaining whether the estimate is Level 4-based, site-level-based or hybrid. - Justification of the values used to derive the Level 5 estimate.	- OGMP implementation plan where available. - Level 5 emissions estimate broken down to the lowest level of granularity available. - Documented explanation whether the estimate is Level 4-based, site-level-based or hybrid, such as calculation sheets and methodology documents. - Justification of the values used to derive the Level 5 estimate.

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
			More details on how to derive a Level 5 estimate are available in the Understand Reconciliation and Level 5 reporting document [7] and the Uncertainty and Reconciliation TGD [4].		
F.4	**Continuous improvement**		Confirm that lessons learned from the reconciliation process are documented and translated into future improvements, where relevant.	- Description of the action plans, implementation updates or revised measurement plans.	Details of the action plans, implementation updates or revised measurement plan if any, in line with item F.2.b
G.	**Risk-based alternative pathway to Level 5 –Distribution grids** Level 5 can be reached for distribution grids if the 6 following elements are verified				
G.1	**Site-level measurement**	**Technology suitability**	Check that site-level measurement was carried using an appropriate Advanced Mobile Leak Detection (AMLD) technology – as defined in the Distribution Grids TGD [6] in particular in terms of detection threshold and quantification performances.	- OGMP implementation plan where available. - Technology datasheet, and description of technology performances including detection threshold, known limitations, and description of suitability with site nature, characteristics and environmental conditions at the time of the survey.	- OGMP Implementation plan where available - Thid party-controlled release test results where available. - Documented minimum detection threshold, and operational limitation of the technology. - Calibration records of the technology or sensor used. - Verification of the environmental conditions at the time of the survey.
G.2		**Supporting measurement data**	Check that accurate, site-specific supporting data were collected where needed to improve the reliability of site-level methane quantification.	- OGMP implementation plan where available. - Sampled records of supporting measurement data such as wind speed or temperature, geolocation. - Sampled calibration records of the sensors used for additional measurements	- OGMP implementation plan where available. - Records of supporting measurement data such as wind speed or temperature, geolocation. - Calibration records of the sensors used for additional measurements
G.3		**Spatial sampling approach**	Check that the measurements covered a representative sample of the distribution system	- OGMP implementation plan where available. - Documented justification for the coverage of the site-level measurement.	- OGMP implementation plan where available. - Documented justification for the coverage of the site-level measurement.
G.4	**Rec**	**Emissions attribution**	Check that each measurement identified using the Advanced Mobile Leak Detection system was attributed to one or more	- OGMP implementation plan where available	- OGMP implementation plan where available

#	Item		Statement	Example of evidence to be checked	
				Limited Assurance	Reasonable assurance
			specific sources following direct investigation using handheld instruments.	- Leak register detailing source and quantification.	- Leak register detailing source and quantification.
G.5		**Emission extrapolation**	Check that the measured emissions using the AMLD system (i.e. both activity factors and emission factors) were extrapolated to the full population using a documented approach.	- OGMP implementation plan where available - Description of the extrapolation method and assumptions and samples of the calculation where required.	- OGMP implementation plan where available - Details of the extrapolation calculation and assumptions.
G.6		**Other emissions**	Verify that the emission sources that could not be captured using the AMLD system, including but not limited to emissions below the minimum detection limit of AMLD, third party damages, operation vents, maintenance vents and odour calls warnings are properly identified, quantified and included in the annual inventory.	- OGMP implementation plan where available. - Description of the methods used to integrate emissions that were not captured by the AMLD system in the annual emissions, and sample testing of the calculation where needed.	- OGMP implementation plan where available - Documentation, calculation details and any other justification to support integration of emission sources not captured by the vehicle-based measurement system into the annual inventory, sample testing of the calculation.
H.	**Risk-based alternative pathway to Level 5 –Transmission pipelines** Section H is only applicable for transmission pipelines. Level 5 can be reached for transmission pipelines if the 4 following elements are verified				
H.1	**Vents quantification**		Ensure that vents due to operation and maintenance, incidents or emergencies, are recorded and reported using appropriate Level 4 methods, in line with the technical guidance documents referenced in Appendix 4	- OGMP implementation plan where available --Check that vent sources inventory covers all potential emitting sources. - Ensure that the method used for each vent source is in line with the relevant TGD. Sample calculation checks where needed. - Perform sample checks on event an incident logs to ensure all events were recorded -Verify sample of activity data for all sources including event counts, vented volumes and associated parameters. - If measurement devices were used (e.g. flow meter devices) ,	- OGMP implementation plan where available. - Check that vent sources inventory covers all potential emitting sources. - Ensure that the method used for each vent source is in line with the relevant TGD. Sample calculation to be carried checks where needed. - - Check and test the calculation methods of the events, and the reasoning of any extrapolation used during the process. - Check the event and incident log, maintenance records and emergency reports to confirm that all events are recorded. - Verify activity data for all sources including event counts, vented volumes and associated parameters. - If measurement devices were used (e.g. flow meter devices) review calibration log file of the device. - Check gas composition data and assumptions

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
			review calibration log file for selected devices. - Check gas composition data and assumptions	
H.2	**Flaring quantification**	Check that flares are quantified at Level 4 in line with the Flare efficiency TGD [12].	- OGMP implementation plan where available. - Check flaring emission calculation method. - Check that DRE/CE is justified. - Check samples of activity data used for emissions estimates. - Ensure that the flares inventory covers all potential sources.	- OGMP implementation plan where available - Check flaring emission calculation method, including flow meter (if applicable) and gas analysis data. - Check that DRE/CE is justified. - Check flare logs, emergency and shutdown events, and verify activity data used for emissions estimates. - Verify that the flare inventory covers all potential sources through site visits or enquiries.
H.3	**Unknown emissions Integrity**	Check that the transmission system is equipped with cathodic protection complemented by preventive integrity management systems	- OGMP implementation plan where available. - Check the integrity management system such as SCADA system or other program (e.g. pigging inspections, walking or aerial surveys or inspections and alert system, pressure testing, monitoring and repair procedures). - Review samples of inspection results and follow-up of anomalies. - Check if the integrity management system covers the whole transmission network in scope, not only part of it.	- OGMP implementation plan where available. - Check the integrity management system such as SCADA system or other program (e.g. pigging inspections, walking or aerial surveys or inspections and alert system, pressure testing, monitoring and repair procedures). Check that the transmission pipeline is equipped with cathodic protection. - Review inspection results and follow-up of anomalies. -Review maintenance logs and confirm that all events are recorded. -Check if the integrity management system covers the whole transmission network in scope, not only part of it.
H.4	**Unknown emissions LDAR**	This applies only if any above ground sites are reported with the pipeline: Check that the operator performs annual leak detection surveys, and that detected leaks are quantified, extrapolated to the relevant scale and integrated to the inventory.	- Check survey reports confirming that a leak detection and visual survey was done in the reporting year. - Check leaks log, sample repair records and resurvey results. - Check the extrapolation method to the relevant scale when applicable.	- Check survey reports confirming that a leak detection and visual survey was done in the reporting year. - Check that the survey covered the full scope, frequency and detection technology used, extrapolation bases if applicable. - Test the quantification and extrapolation, emission factors and activity factors used.

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
			- Check the equipment's used calibration logs and QA/QC results.	- Check leaks log with repair records and resurvey results. Check the equipment's used calibration logs and QA/QC results. -When needed verify a sample of detections on site.
I. Risk-based alternative pathway to Level 5 –Transmission stations Level 5 can be reached for transmission pipelines if the 5 following elements are verified				
I.1	**Vents quantification**	Ensure that vents due to operation and maintenance, incidents or emergencies, are reported using appropriate Level 4 methods, in line with the technical guidance documents referenced in Appendix 4	- OGMP implementation plan where available --Check that vent sources inventory covers all potential emitting sources. - Ensure that the method used for each vent source is in line with the relevant TGD. Sample calculation checks where needed. - Perform sample checks on event an incident logs to ensure all events were recorded -Verify sample of activity data for all sources including event counts, vented volumes and associated parameters. - If measurement devices were used (e.g. flow meter devices) , review calibration log file for selected devices. - Check gas composition data and assumptions	- OGMP implementation plan where available. - Check that vent sources inventory covers all potential emitting sources. - Ensure that the method used for each vent source is in line with the relevant TGD. Sample calculation to be carried checks where needed. - - Check and test the calculation methods of the events, and the reasoning of any extrapolation used during the process. - Check the event and incident log, maintenance records and emergency reports to confirm that all events are recorded. - Verify activity data for all sources including event counts, vented volumes and associated parameters. - If measurement devices were used (e.g. flow meter devices) review calibration log file of the device. - Check gas composition data and assumptions
I.2	**Vent quantifications**	Ensure that vents from pneumatic devices, analysers and other material sources are reported using appropriate Level 4 methods, in line with the technical guidance documents referenced in Appendix 4. Check that malfunctions and broken devices are effectively captured in the inventory.	- OGMP implementation plan where available. - Verify activity data for sampled sources including event counts, vented volumes and associated parameters. - Perform sample checks of the inventory of pneumatic devices for all stations.	- OGMP implementation plan where available - Perform checks of the inventory of pneumatic devices for all stations. - Verify activity data for a larger sample of sources including event counts, vented volumes and associated parameters. - Ensure the method used for each source is in line with the relevant TGD. - Test emission factors or measurements used for each device type.

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
			- Ensure the method used for each source is in line with the relevant TGD. - Test emission factors or measurements used for sampled device types. - Review survey results for sampled malfunctions and how their duration and emissions are estimated.	- Review survey results for malfunctions and how their duration and emissions are estimated.
I.3	**Leaks quantification**	Check that the operator performs at least annual LDAR campaigns covering all stations. Ensure that all components and equipment are accessible for measurement. Check that the operator uses a combination of independent handheld devices to ensure all emissions are identified and reported (e.g. FID and OGI in combination with a HFS for quantification)	- OGMP implementation plan where available - LDAR campaign reports exist for the reporting year for sampled stations with a record of leaks and repairs. - Check the LDAR procedures, including detection thresholds, technology used and repair criteria. - Check coverage of components and equipment, including non-accessible sources for sampled stations station using the right technology. - Check repair records and final emission estimation.	- OGMP implementation plan where available. - LDAR campaign reports exist for the reporting year for each station with a record of leaks and repairs. - Check the LDAR procedures, including detection thresholds, technology used and repair criteria. - Check instruments suitability and calibration records. - Check coverage of components and equipment including non-accessible sources within each station using the right technology. - Review emission calculation sheets (i.e. if emissions are measured directly, or quantified using measurement-based emission factors) - Check repair records and final emission estimation.
I.4	**Other emissions**	Check if other emissions are present, such as incomplete combustion, and therefore reported.	- OGMP implementation plan where available. - Inventory of methane emissions as described in item B1. - Description of method used to integrate other emissions in the annual inventory.	- OGMP implementation plan where available. - Inventory of methane emissions as described in item B1. - Documented justification for method used to integrate other emissions in the annual inventory.
I.5	**Extrapolation**	Check if any source of emissions needs to be extrapolated to the relevant scale and reported.	- OGMP implementation plan where available. - The extrapolation method is documented from the sampled of sources or stations to the full population.	- OGMP implementation plan where available. - Check that the sample is representative and the extrapolation drivers are appropriate. - Check the factors and assumptions used for extrapolation.

#	Item	Statement	Example of evidence to be checked	
			Limited Assurance	Reasonable assurance
J.	**Uncertainty**			
J.1	**Level 4 Uncertainty**	Check that uncertainty for the Level 4 inventory has been assessed. The assessment can be either qualitative or quantitative. Check that the approach is consistent with the method used to construct the assessment, and reflects the understanding of the parameters that impact the most the source-level inventory.	- OGMP implementation plan where available. - Level 4 uncertainty statement that includes assessment of all material sources. - Uncertainty methodology Note: the focus of the verification should be on the availability, traceability and justification of calculations and documentation, rather than on independently recalculating uncertainty.	- OGMP implementation plan where available. - Uncertainty methodology and supporting calculations. - All material sources are included in uncertainty estimate, with justification provided for any excluded sources Note: the focus of the verification should be on the availability, traceability and justification of calculations and documentation, rather than on independently recalculating uncertainty.
J.2	**Site-level measurement uncertainty**	Check that the site-level measurement uncertainty is quantified and documented, starting from the vendor-reported uncertainty and considering site-specific factors such as weather conditions, site access constraints, incomplete plume capture and the number of measurements. *Note: if reconciliation identifies discrepancies, these factors should be assessed as potential causes.*	- OGMP implementation plan where available. - Justification of uncertainty estimate for site-level measurement and description of the factors contributing to the overall uncertainty.	- OGMP implementation plan where available. - Vendor uncertainty documentation. - Results of controlled release tests. - Documentation of site-specific factors such as meteorological conditions, and how they could impact the uncertainty of site-level quantification.
J.3	**Level 5 Uncertainty**	Check that uncertainty is quantified and provided for the Level 5 estimate, and that the approach is consistent with the method used to construct the estimate. Uncertainty analysis can be either qualitative or quantitative.	- OGMP implementation plan where available. - Level 5 uncertainty statement (either quantitative or qualitative). - Description of the method used, assumptions and contributing factors in determining the uncertainty estimate including temporal and spatial extrapolation.	- OGMP implementation plan where available. - Level 5 uncertainty statement (either quantitative or qualitative) - Details of the uncertainty analysis, carried at the source-level and identification of the parameters most affecting total emissions. - Details of uncertainty- either qualitative or quantitative, brought by temporal and spatial extrapolation, if any. - Supporting calculations (for quantitative analysis), justification and documentation of the method used.

Appendix 2. Verifier assessment template

Asset name	
Verification date	
Verification method *(On-site / Desk-based / Hybrid)*	
Verification name and organization	
Accreditation / qualifications	
Verification period covered	
Duration of the verification	
Overall conclusion *(Level 5 compliant / not compliant)*	

- Items A, B and J are required independently from the type of asset or the pathway to Level 5 followed.
- In addition, to assess Level 5 conformance, the following items are required depending on the type of asset and pathway to Level 5:
  - Items C, D, E and F for site-level measurement and reconciliation, as a base-case, or
  - Item C and G for distribution grids having selected the risk-based alternative pathway to Level 5, or
  - Item H for transmission pipelines having selected the risk-based alternative pathway to Level 5, or
  - Item I for transmission stations having selected the risk-based alternative pathway to Level 5.

Item	Verification criteria	Evidence checked	Verifier Assessment and Findings	Assessment Outcome
Main element being assessed.	*Requirement or expectation against which compliance is evaluated.*	*Documentation, records, interviews, observations, and other evidence reviewed.*	*Summary of assessment performed, evidence considered, observations, and justification for the conclusion.*	*Conform with OGMP 2.0 Level 5/ Non-conform with OGMP 2.0 Level 5/Not applicable for the asset*
e.g. : A.1				
B.1				
B.2				
2.3				
C.1 (a.1 and a.2 or b)				
D.1				
D.2				
D.3				

Appendix 3– Main gaps between OGMP 2.0 Level 5 and EU MR requirement

Level 5 reporting requirements presents some differences compared to the requirements of the EU MR Article 12. A non-exhaustive list of the most significant differences is listed in this appendix. These differences should not undermine the quality of methane reporting, they rather support a pragmatic implementation of methane emissions quantification. Appropriate regulatory agencies would need to assess the extent to which changes would be needed to this guidance to determine the adequacy for requirements with any applicable regulations

Applicable technical guidance documents

Article 12(4) of the EU Methane regulation states that "The Commission shall, by means of implementing acts, lay down a reporting template for the reports provided for in this Article, taking into account the national inventory reports already in place and the latest technical guidance documents and reporting templates of the OGMP 2.0. On the other hand, article 12 (5) of EMR refers to "the latest OGMP 2.0 technical guidance documents approved by 4 August 2024".

This guidance describes conformance with Level 5 reporting based on the most recent version of the OGMP 2.0 technical guidance documents, including the Transmission systems TGD and distribution grids TGD, approved in January 2026, the Flare TGD approved in June 2026 and the LNG Shipping approved in September 2026.

Materiality

Level 5 reporting as described in the OGMP 2.0 technical guidance documents requires quantification the material sources of the asset at Level 4, while non-material sources can be quantified at Level 3 using generic emission factors. Article 12(2) of the EU MR requires quantification " of source-level methane emissions" using direct measurement or "where direct measurement is not possible", using "specific emission factors based on source-level quantification or sampling". In this guidance, measurement-based quantification is not required for the full source-level inventory, but only for the material sources as described in section 4. Verification requirements.

Asset definition

Level 5 is assessed at the asset-level as defined by the OGMP 2.0 technical guidance documentation as well as in section 2. Scope, verification objectives and verification criteria. The EU MR defines an asset as "a business or operating unit, which can be composed of several facilities or sites, including operated assets and non-operated assets". The definitions leave room for different interpretations and, consequently, for potential differences in asset boundaries. Where such differences exist, companies will need to work on establishing equivalencies.

Site-level measurement requirement

Article 12(3) states that source-level quantification should be "complemented by measurements of site-level methane emissions, thereby allowing assessment of and comparison with the source-level estimates aggregated by site".

In this document, site-level measurement may not be required to achieve Level 5 for a defined list of assets. For distribution grids, transmission pipelines and transmission stations, an alternative pathway to Level 5 was defined in the Technical Guidance Documentation, considering the specificities of these assets. Reconciliation may not be required for distribution grids when site-level measurement is carried using vehicle-based measurement systems, as described in section G of the conformance checklist. Site-level measurement is not required for transmission systems as described in sections H and I of the conformance checklist.

Appendix 4 – References and applicable documents

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