

OGMP 2.0 Technical Clarification: Use of Site-level Technology and Acceptable L4 Methods

The OGMP 2.0 Framework (“Framework”) was drafted in 2020 and incorporated a reasonable understanding of methane emissions monitoring and reporting (M&R) practices based on collective input by prospective OGMP 2.0 members, non-governmental organizations and UNEP. Since then, additional scientific studies, technology advances, and membership experiences have advanced understanding of M&R practices. This document clarifies areas of ambiguity in the Framework made evident by these learnings and which are necessary to provide clarity because of the adoption of the Framework into corporate governance and controls procedures, voluntary standards, and regulatory programs. This clarification note is also intended to enable operators to focus on methane measurements and estimates that are most likely to lead to actionable mitigation and accurate measurement-informed inventories. This guidance does not affect any approved company plans but offers additional clarity on the options for operators in OGMP 2.0.

Framework Clarification on Use of Site-level Technology for Level 5 reconciliation

The Partnership recognizes the need for clarity on acceptable site-level methods to ensure consistency and fairness in implementing the Framework. There has been evolution in methane detection and measurement technologies since 2020, and we expect evolution to continue over time with both new and existing technologies expanding availability globally.

- The reporting framework does not require a linear sequence of Level 3, to Level 4, to Level 5 and it also allows conducting site-level measurements at any time in a member’s journey and at any reporting level. However, to achieve Level 5, members are required to perform a reconciliation between site level measurements and a Level 4 inventory.
- A site-level measurement technology with appropriate detection thresholds and the ability to resolve individual sources may be used to inform source-level (Level 4) estimate—either directly, by providing a measurement-based emissions factor, or indirectly, by offering insights that help the member prioritize sources for developing the Level 4 inventory. Please note that we are currently unaware of any site-level technology that can resolve all sources in all instances and members should expect to use a combination of approaches to determine Level 4 emissions.
- Early deployment of site-level technologies with source-level resolution may provide new insights for the operator in reaching Level 5 by assisting prioritization of sources that may have been missed or fundamentally misunderstood in the source-level inventory. Operators can determine which sources require additional investigation and follow-up for improving the Level 4 inventory based on data from these high-quality site-level measurements.

An asset will achieve Level 5 if:

- Pathway 1: Site-level measurements confirm the accuracy of the source-level (Level 4) inventory;
or,

- Pathway 2: Site-level measurements suggest a discrepancy, which has been investigated and provide sufficient information obtained to inform adjustment of the Level 4 inventory and derive a Level 5 estimate

Under Pathway 2, it may not be possible to update the Level 4 inventory within the same reporting year. For Level 5 reporting, it is acceptable for members to have identified a forward plan to close the discrepancy and update the Level 4 inventory the following year. The guiding principle for Level 4 adjustment following the reconciliation exercise is that the company should conduct targeted asset-specific source-level Level 4 quantification, but only for those sources that are likely to cause or have caused the discrepancies revealed in the reconciliation. The goal for supplemental source-level estimates beyond the initial comprehensive Level 4 inventory should be to improve the accuracy of the final asset-level inventory.

For OGMP 2.0 reporting, staff retains a role in reviewing company deployment plans and submitted inventory data, meaning that there is oversight on technologies selected to ensure that performance is well-documented and technologies with reasonable detection limits are selected. This note clarifies that this pathway is available for operators, but does not change approved plans or other pathways for an operator to reach Level 5. For technologies that can offer source-level attribution of emissions while screening an entire site, the same technology may be used for Level 4 source-level quantification and site-level measurement, as long as the following conditions are met:

- Technology has credible public references for its performance (i.e., regulatory approval¹, peer-reviewed methods, public and independent protocols for deployment);
- Technology has an appropriate site-level detection threshold² and can resolve individual sources at the site, recognizing that currently there is no technology that can resolve all sources in all instances;
- Detected methane emission information from the survey is used to update an operator's source level inventory;
- The operator has considered intermittency of material non-continuous sources (i.e. blowdowns, liquid unloading) in its source-level inventory; and
- Independent datasets are used to inform source- and site-level estimates during reconciliation. Site-level measurement data may be used to adjust Level 4 inventory, for example where new sources have been found, or where estimates may be higher than previously determined.

Clarification to Definition and Purpose of Level 4

Per the OGMP 2.0 Reporting Framework, the Level 4 emissions inventory estimates should be specific to the type of equipment in operation at the asset, rather than generic. The intent of Level 4 is to utilize quantification methods to develop a comprehensive source-level emission inventory at an asset to aid in comparisons to site-level quantification and inform operator mitigation actions. Level 4 does not

¹ For example, approval as an [Alternative Test Method](#) by the Environmental Protection Agency (EPA) for fugitive detection and quantification.

² Appropriate threshold is dependent on the facility type. Indicatively, site-level technologies used to provide source-level detection level under a specific threshold. However, this may vary depending on operator-specific circumstances in deployment of the technology.

explicitly require the use of source-level direct measurement technologies but rather is based on the use of field-derived information rather than a generic facility design or based on throughput information. Level 4 estimation methods can take multiple forms.

OGMP 2.0 Level 4 reporting may involve the use of direct measurements, measurement-based emissions factors, detailed engineering calculations, process simulations, or a combination of them, depending on the methane emissions source. It is equally important for operators to ensure the activity data is representative of operator's assets, rather than generic activity data estimates.

The source-specific TGDs can give examples of suitable Level 4 quantification techniques, but **alternative methods can be used**, provided the alternative methods are broadly similar or enhanced in terms of their readiness, level of accuracy, and suitably evidenced in order to enable appropriate justification for their use at the operator's assets.

Alternative methods may also be considered to overcome unique implementation feasibility challenges for specific sources present at specific assets. Measurement-based emission factors can be used as part of Level 4 quantification for like systems. As a general rule, events or equipment with similar operational, environmental or design characteristics can be considered as like systems. Variations around some characteristics are acceptable, if it can be demonstrated that these do not significantly affect methane emissions. Such emission factors can also be shared and applied across the partnership where these are deemed to be representative of the reporting member's sources and operations. Examples of alternative methods that can be used in the right context may include:

- Manufacturer's estimates of emission rates provided they can be justified as representative based on specific operating conditions, and have procedures in place to identify abnormal events.
- Emission factors derived from academic or industry field campaigns that are of high data quality and representative, including for some source methods described in the API Compendium
- Emission factors and methods approved for regulatory use that are based on representative measurement-based emissions estimates³
- Source-resolved data provided by site-level technology

To be clear OGMP 2.0 is not providing a blanket endorsement of use any calculation method outlined in these estimation protocols or regulations, rather emphasizing that many source estimation methods outlined in these may qualify for use in developing source-level inventory customized to each operator asset portfolio. Level 4 measurements need not be repeated on an annual basis.

Reporting of uncertainties associated with source level estimates shall follow appropriate technical guidance.

³ Some regulations that include methods which have been and/or may be applicable for Level 4 use include, for example Norwegian Guideline 044 and Greenhouse Gas Reporting Program (GHGRP),