



Methane Detection & Quantification (D&Q) Tech Buyer's Checklist

Introduction

Methane detection and quantification (D&Q) technology is evolving rapidly, with a growing number of platforms, vendors, and claims. For GHG specialists and emissions program managers tasked with technology evaluation, the decision-making process can feel overwhelming.

This checklist is designed to simplify that process. **Use it to:**

- Clarify monitoring goals
- Align platform capabilities with site and emissions characteristics
- Prepare for vendor selection or pilot projects
- Advance toward OGMP 2.0, EU Methane Regulation (EUMR), or voluntary certification readiness

It's best used in tandem with the EDF-commissioned guide, which provides a comprehensive landscape of methane D&Q technology attributes, case studies, and platform trade-offs.



01

Define your current methane D&Q goals

Use these prompts to reflect on what you know — and still need to uncover — about your emissions profile. These questions can help guide discussions with vendors, shape measurement campaign design, and clarify where new data is most valuable.

What are you trying to achieve?

- ☐ OGMP 2.0 compliance (Level 4 or 5)
- ☐ MiQ certification
- ☐ Veritas compliance
- ☐ Regulatory readiness (e.g., EUMR)
- ☐ Operational performance / emissions reduction

What level of measurement granularity is required?

- ☐ Source-level
- ☐ Site-level
- ☐ Asset-level
- ☐ Do you require real-time detection?
(e.g. for continuous monitoring)

02

Explore your emissions landscape

What types of emission sources are likely present?

- ☐ Fugitive emissions (unintentional leaks, equipment failures)
- ☐ Venting (routine or operational releases)
- ☐ Combustion-related methane (incomplete burn, flares, engines)
- ☐ Not sure — our goal is to better understand this

What do you currently know about your...

- ☐ Emission event rates (Are they mostly small? Occasionally large?)
- ☐ Emission intermittency (Are they short bursts? Long-lasting?)
- ☐ Emission frequency (Do they repeat predictably? Rare events?)

Not sure how to answer some of these? That's okay.

One of the goals of a measurement program — and the right technology selection — is to reveal these behaviors over time. Your answers here can help prioritize technologies that are well-suited to early-stage discovery and flexible deployment.



03

Evaluate site & access constraints

Identify the practical limits that could rule technologies in, or out, before you even start a pilot:

- ☐ Are sites remote or difficult to access?
- ☐ Are you operating offshore?
- ☐ Are there any safety considerations or other restrictions that may constrain your options?
- ☐ Is power or connectivity an issue at the site?

04

Assess data requirements

Pin down the resolution, frequency, and quality of data you need—so every technology is judged on its ability to drive actionable insight:

- ☐ Spatial resolution (equipment/component level)
- ☐ Temporal resolution (hourly vs quarterly)
- ☐ Quantification accuracy for reconciliation

Will this data need to

- ☐ Integrate with existing emissions systems?
- ☐ Be shared with investors, auditors, or regulators?
- ☐ Undergo third-party verification?

05

Understand budget & vendor landscape

Clarify what you can spend and who can deliver, so your shortlist reflects both technical fit and fiscal reality:

- ☐ What is your total annual budget for methane detection and quantification, including for regulatory requirements?
- ☐ Have you used, or considered using, simulation modelling to gain insights into how the various technologies being considered will perform?
- ☐ Are you interested in a specific technology deployment platform or vendor?
- ☐ How important is emissions quantification to you?

Have you reviewed

- ☐ Probability of Detection (PoD) curves?
- ☐ Quantification uncertainty?
- ☐ Vendor track record in similar asset classes?



How to use this checklist effectively

Once completed, these responses can be shared internally with your operations, ESG, finance or other teams to align on priorities and budget before evaluating vendors. In addition, Highwood Emissions Management can leverage these insights to:

01. Clarify your requirements

Better articulate exactly what you're trying to detect, where, how often, and why.

02. Align tech capabilities

Compare your needs against platform options using the "Leveraging Technology to Tackle Methane Emissions" report tables (e.g., sensitivity, coverage, deployment method).

03. Shortlist fit-for-purpose vendors

Help build a vendor shortlist or frame a pilot scope.

04. Map to OGMP 2.0 & regulatory milestones

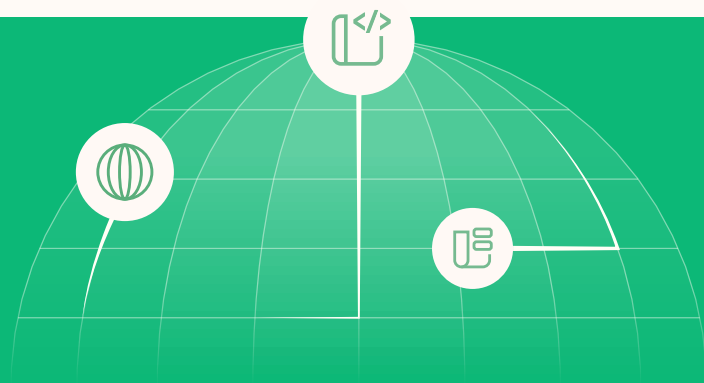
Plan upgrades needed to meet reporting frameworks or prepare for EUMR clause inclusion.

Ready to put your checklist insights to work?

Speak with a Highwood expert to explore technology options, map regulatory milestones, or build your measurement roadmap.

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About Highwood

Highwood Emissions Management helps oil & gas companies navigate OGMP 2.0, EUMR and other methane frameworks with confidence.

Our proven platform — developed with industry leaders and backed by expert consulting and education — accelerates certification, delivers audit-ready reporting, and streamlines methane workflows.

Trusted by companies responsible for over 10% of global oil & gas output, Highwood has a track record of enabling clients to achieve Gold Standard with Level 5 reporting, across complex operations. As the leader in methane reporting, strategy and compliance, we eliminate data gaps and guesswork.

When the pressure is on to meet the world's toughest standards and strengthen investor confidence we deliver — turning compliance into strategic advantage.