



MiQ STANDARD

for Methane Emissions Performance

Introduction for Auditors
Version 1.0

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Introduction

About MiQ

MiQ is a global, independent, non-profit with a mission to facilitate a rapid reduction in methane emissions from the oil and gas industry through increased transparency of emissions, enabling buyers and sellers to differentiate natural gas according to its emissions intensity. Methane emissions from the oil and gas sector have a detrimental impact on climate change as a short-lived climate pollutant.

MiQ has established a universally applicable certification standard for assessing methane emissions performance, which provides a framework for the grading of a gas producer's emissions management and emissions intensity across three criteria:

- **methane emissions intensity;**
- **enhanced monitoring technology deployment; and**
- **improved company practices for methane emissions avoidance.**

Natural gas facilities, spanning Production, Boosting & Gathering, Processing, Transmission & Storage, Liquefaction, Shipping and Regassification, are assessed by third-party independent auditors against the MiQ Standard for Methane Emissions Performance, resulting in an facility-level certification grade from A to F, each attesting to a methane intensity for that facility's operations. Producers and operators that have their facilities audited can obtain transactable MiQ Certificates, which represents an environmental attribute associated with the methane emissions of the **certified gas**.

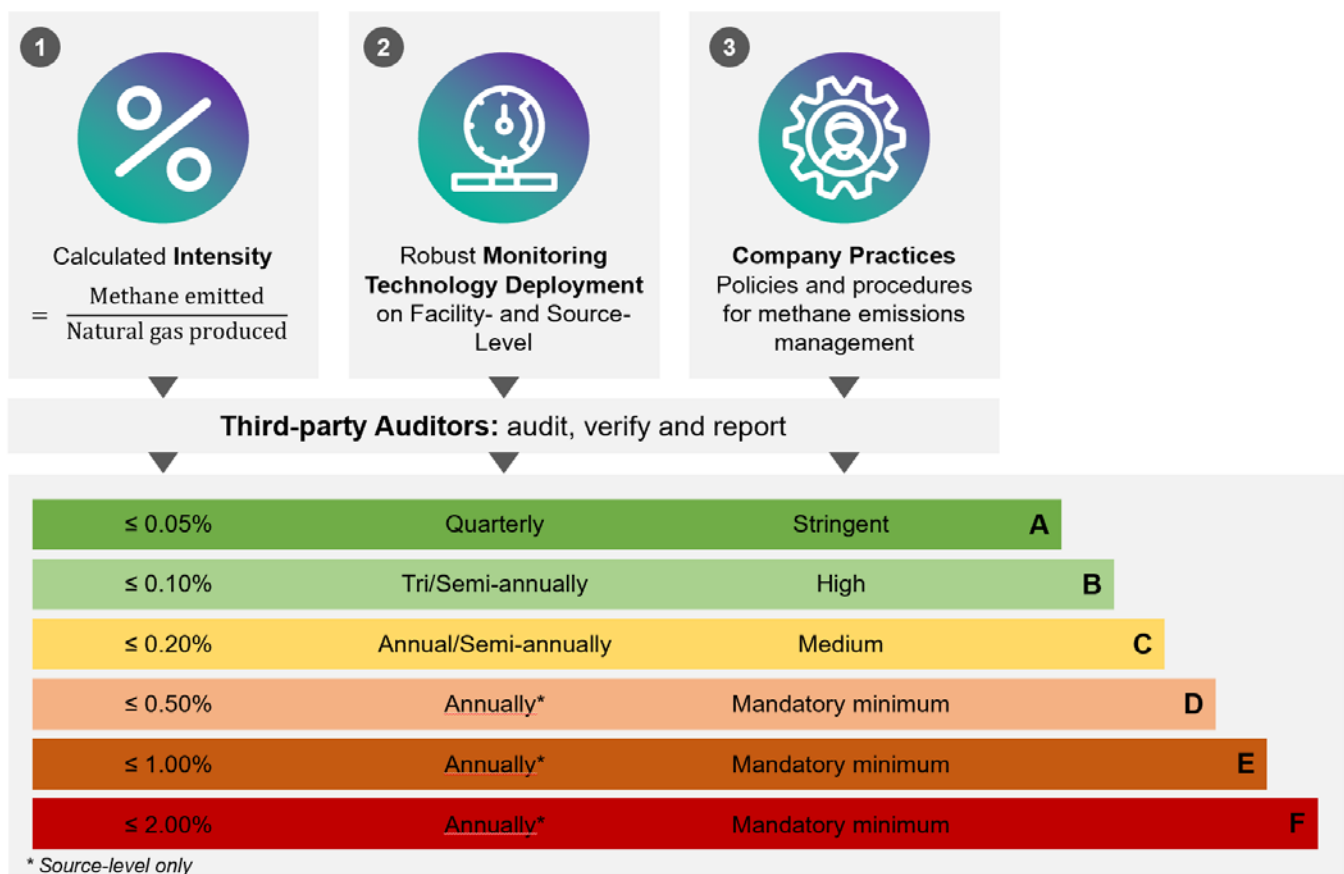


Figure 1: Simplified grading structure for the MiQ Onshore Production Standard v0.9

MiQ Certificates are issued to producers'/operators' accounts on the MiQ Digital Registry. Once issued, these parties can transfer MiQ Certificates to buyers to evidence the emissions intensity of its gas production and, where

applicable, the combined Certified Supply Chain certificates. Certificates are retired upon consumption of the natural gas as evidence of emissions generated for production through to the city gate.

MiQ Standards

MiQ has developed Standards for Methane performance for each segment of the natural gas supply chain, including:

- Onshore Natural Gas Production
- Offshore Natural Gas Production
- Natural Gas Gathering & Boosting
- Natural Gas Processing
- Natural Gas Transmission & Storage
- Natural Gas Liquefaction
- Liquefied Natural Gas Shipping
- Liquefied Natural Gas Regasification

Upon completion of extensive stakeholder feedback and assessment of the Standard with pilot projects, complete Standards are published on the MiQ [website](#).

Auditors must be qualified and credentialed to the specific segment of the supply chain, according to procedures below, in order to be accredited and perform audits to the corresponding Standard. Auditors with sufficient relevant experience may be accredited to any or all of these segments.

The MiQ Digital Registry

The MiQ Digital Registry provides a “single source of truth” and tracks MiQ Certificates from issuance to retirement. Tracking the certificates in the registry is crucial to providing credibility to buyers and the market by ensuring that certificates cannot be sold twice for the same unit of gas production and cannot be transferred once used (‘retired’) by an end-user (avoiding ‘double-counting’).

The MiQ Registry conducts and maintains validation know-your-customer (KYC) checks on participants in the MiQ program, including Auditors. Auditing firms must undergo a KYC check by the MiQ Digital Registry as part of MiQ’s auditor accreditation process.

Audits

It is the role of auditors (that are accredited by MiQ) to carry out the necessary audits according to the requirements defined in the MiQ Standard and its subsidiary documents, as well as according to the procedures defined in Procedure 1: Certification.

Audit Process

An **ex-ante audit** is carried out prior to the issuance of any MiQ Certificates and is valid for 12 months of certificate issuance. The audit must be undertaken by an audit company accredited by MiQ. A list of accredited auditors is available on the [MiQ website](#).

During the ex-ante audit, the operating company pursuing certification of their facility provides the auditor with historical data as well as forecasted methane intensities regarding a company’s methane emissions inventory that the auditor will independently review for accuracy and completeness to meet the objectives of the *Methane Intensity subsidiary document*. The auditor also reviews documentation that indicate a company’s compliance with the *Company Practices subsidiary document* covering employee training and awareness around methane emissions sources and risks, incident reporting, quantification and corporate stewardship practices, and policies to mitigate specific emission sources. This documentation may include engineering drawings and diagrams of facilities which show the location of potential emitting sources, operational practices to maintain operational envelopes, and routine and emergency maintenance procedures to control the consequences of equipment degradation. To evaluate a company’s performance to the *Monitoring Technology Deployment subsidiary document* the auditor will review a company’s LDAR program and deployment of monitoring technologies to assess the frequency and coverage each

detection method utilized in the Facility. For each detection method utilized, the auditor must evaluate results of independent, single blind testing of the technology used in the detection method to ensure it meets the requirements of the MiQ Standard.

The auditor will conduct onsite field inspections and interviews with key staff to observe operational practices and equipment installations, validate documentation, GHG accounting processes and procedures provided by the operator. Field inspections must include a representative sample of a facility's operations with relevant company personnel (i.e. lease/plant operators, site engineering and EHS staff) to assess staff familiarity with emissions reductions efforts and verify the implementation of relevant procedures. Interviews may include relevant personnel including operations managers, lease/site operators, engineering management/staff and EHS management/staff. Verification of monitoring deployment for each proposed detection method should include spec evaluations, survey design, interviews with surveyors as well as on-site observations.

The Auditor will use a combination of the above methods to complete their audit report and recommend an ex-ante grade based on reasonable assurance for the Facility's overall performance.

Reportable emissions identified throughout the certification period will be submitted to the MiQ digital registry. It is the responsibility of the Operator and Auditor to validate the quantity of actual emissions and any deviation from the grade recommended at the time of the Ex-Ante audit.

The MiQ Standard is a flexible framework that intends to change over time as understanding around methane emissions performance, management, quantification, measurement, and detection evolve and improve. The process described above may change over time and be made fit for purpose depending on other voluntary initiatives that an Operator may be involved with. Any changes to the audit process will be communicated to Facility Owners and Auditors, and shared publicly with Stakeholders.

Conflict of Interest

Auditors must maintain true independence and avoid conflict of interest, financial, personal, reputational, or otherwise, within the certification process. Auditors are not permitted to assess their own data or work product, including, but not limited to, primary data collected or processed on behalf of the operator (such as emissions measurement or monitoring data), or prior consulting or emissions management support.

It is understandable, that auditing firms may have historical involvement or provide other services to a given operating company outside of the MiQ certification scope. In such cases, auditing firms (1) recuse any staff or Principal auditor(s) that has taken part in work scopes that have aided emissions management or accounting for the operator, (2) demonstrate the application of a "Chinese Wall" to manage avoidance of any information sharing between previous or external work scopes and that of MiQ, (3) provide a corporate conflict of interest policy/statement outlining their principles and procedures for avoiding conflict in client management.

Subject matter experts, in addition to numerous external stakeholders, have been consulted or provided feedback in the development of the MiQ Standards as well as Auditing process. This does not preclude any firm or individual from conducting audits against these public Standards.

Costs and fees

The operator pursuing certification of their facility will be responsible for any costs relating to the provision of information and data for the audits and for the cost of the audit itself.

Auditors must register and their accreditation logged on the MiQ registry. There is no cost to Auditors associated with registration.

Accreditation Process

Auditor requirements

An accredited auditing group must include an individual or group of individuals, known here as Principal Auditors, who are credentialed to the requirements below. An accredited auditing group may consist of a single firm, or

multiple firms or individuals that, in combination, fulfil the necessary requirements and whose documents were submitted at the time of accreditation.

A single firm is not wholly accredited to the MiQ Standard. New divisions or geographically-centralized teams within a given firm who wish to conduct audits must apply for accreditation separately.

Principle auditors must be involved in the audit process and attest to their assessment in signing of the final audit report. New or preplacement Principal auditors must submit their credentials and supporting documents to MiQ in order to take part in any audit or signing of a final report. Secondary staff may support an audit process.

Auditors must submit documentation, CVs, and complete interviews to demonstrate their competency towards the subject matter expertise and credentials outlined below.

MiQ Auditor Application Requirements

Methane Intensity

- Demonstrated familiarity with the following:
 - Quality management for environmental systems
 - ISO 9001:2015 [1]
 - ISO 14001:2015 [2]
 - ISO 19011:2018 [3]
 - Similar internal management systems
 - Emissions inventory and information statement development and management
 - ISO 14064-1:2018 [4]
 - ISO 14064-3:2019 [5]
 - ISO 14065:2020 [6]
 - Demonstrated experience with completing, consulting to, or auditing emission inventories and reporting programs for various initiatives including EU ETS [7], CDM [8], CDP [9] and others.
 - Demonstrated experience of top-down and bottom-up methane emission quantification approaches, including developing and coordinating research projects, implementing quantification programs, and analyzing quantification data
 - Developing baseline absolute emissions and emissions intensities
 - Individuals have significant experience developing regulatory emissions inventories for relevant industry segments

Company Practices

- Individuals have experience with the following:
 - Process engineering experience in various oil and gas industry segments.
 - Environmental compliance experience in the oil and gas industry, including but not limited to:
 - Implementing procedures to minimize emissions from critical methane emission sources
 - Execution of programs to improve oil and gas company culture around methane emissions awareness and management, including operator training programs and corporate stewardship programs
 - Analysis of leak detection and repair (LDAR) program performance and improvement, *including* the use of advanced technologies such as continuous monitoring systems or intermittent plane/drone-based surveys
 - Experience regarding LDAR program reporting structures
 - Development of methane reduction programs and emissions management systems in the oil and gas industry
 - Project management experience
 - Professional engineering experience
 - Professional auditing services experience and accreditation

**For oil and gas specific experience, Individuals should elaborate on specific experiences and specific segments of expertise (i.e. production, G&B, processing, transmission, liquefaction etc.)*

Monitoring Technology Deployment

- Individuals have experience with the following technologies and work practices associated with use of methane emissions monitoring technologies that may be used to comply with the MiQ Standard

- Source-level leak detection survey technologies and methods including handheld OGI surveys or surveys compliant with USEPA Method 21 [10]
- Facility-scale leak detection survey technologies and methods including vehicle-based, drone-based, fixed-wing aircraft-based, continuous monitoring systems etc.
- Individuals have experience evaluating methane emissions monitoring technology capabilities through single-blind independent release testing
- Individuals have experience evaluating LDAR program components, including but not limited to:
 - Technologies and detection methods used
 - Frequency and spatial coverage of each detection method
 - Critical environmental parameters that affect detection performance, and mitigation steps taken by company to minimize adverse impacts
 - Data collection, transfer and alarm systems for captured emissions events
 - Leak detection and reporting procedures
 - Leak repair procedures
 - Leak repair verification procedures
 - Leak detection and repair recordkeeping procedures
 - Compliance with LDAR repair timelines
 - Equipment training protocols
 - Technology calibration protocols

General Requirements

- Document the geographies for which you serve
- Document the industry segments for which you intend to apply for certification
- List each member of the auditing staff you intend to include in the accreditation package, including full CVs
- Provide documentation to MiQ describing internal processes used to manage and avoid conflicts of interest with prospective clients

Accreditation Application

MiQ’s accreditation and approval activities will keep pace with market needs to support MiQ certification in necessary geographies and supply chain segments. Regular management reviews of market analyses and market demands, including those derived from interested parties, will dictate the speed of accreditation for a given auditing group.

The following is a brief overview of the accreditation process:

Phase	Description
Initial Inquiry	Auditor reviews the MiQ Standard. Auditor expresses interest to become an Accredited Auditor for the MiQ Standards, with supporting information on segment and geographical coverage as well as market justification.
Screening	MiQ conducts an initial interview to assess subjection matter expertise and experience necessary for eligibility as well as any staffing gaps that might be filled prior to application.
Auditor application	The Auditor provides an accreditation package to MiQ as per the requirements under the Accreditation Process. MiQ reviews documents and requests additional information if necessary

MiQ review	MiQ reviews information package and requests additional information if necessary.
Interview	MiQ interviews Principal auditors listed in the application, including subject matter expertise, auditing procedures and hypothetical scenarios. Demonstrated familiarity with MiQ Standard is required.
Registry sign up and KYC	Following the initial screening process, the auditor will be prompted to sign up to the MiQ Digital Registry and submits information to verify the identity, suitability, and financial risks for incorporation of the registrant (KYC) (http://miqregistry.org/)
KYC approval	The auditor is KYC approved and accepted as an Accredited Auditor on the MiQ Digital Registry
Accreditation notification	MiQ informs the Auditor of its Accreditation decision for each Standard segment the Auditor has applied to
ACCREDITATION	

Public data

Limited information relating to certified assets is made publicly available on miqregistry.org, such as asset name, asset location, operator, annual capacity, audit company, certification period and certification grade of each certified asset. Additionally, anonymised aggregated data (such as total MiQ certificate issuances) may be published on miqregistry.org and miq.org and used in MiQ's public communications.

Further information

This document provides a high-level summary of the MiQ standard and the process for becoming an MiQ accredited auditor. Further information is available at miq.org. In particular, the MiQ Standard for Methane Emissions Performance – Onshore Production and the MiQ Program Guide should be consulted to gain a deeper understanding of the MiQ Standard and implementation of the MiQ program, which are available at our website miq.org.

Please contact accreditation@miq.org for additional information.

References

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- [8] UNFCCC Clean Development Mechanism. (2022). Validators and verifiers: Designated operational entities. Retrieved from: <https://cdm.unfccc.int/DOE/index.html>
- [9] Carbon Disclosure Project. (2022). Verification. Retrieved from: <https://www.cdp.net/en/guidance/verification>
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