OBSERVATIONS IN RELATION TO CATEGORY ASSESSMENT
MINE METHANE CAPTURE AND UTILIZATION FOR ENERGY
APRIL 2026

1. Purpose of these observations

The Governing Board of the Integrity Council for the Voluntary Carbon Market (ICVCM), when considering the assessment of methodologies related to mine methane capture and utilisation, identified that it would be beneficial to make available their observations for the purpose of supporting the future development of methodologies in these Categories.

These observations are non-binding and do not impact or form any part of the Assessment Framework, Assessment Procedure, or any Decision (as defined under the Assessment Framework) and are published by the Integrity Council for the purpose of information only.

The Integrity Council may, from time to time, publish other observations for other Categories where it considers this may be useful for CCP-Eligible Programs and other stakeholders and may update and revise its observations from time to time based on further assessment processes or information. Observations are not an exhaustive set of views of the Governing Board, and not all aspects addressed in assessment processes are included. No reliance may be placed on observations, as they are for the purpose of information only, and observations published are without prejudice to other ongoing assessments.

The Governing Board would like to express its gratitude to the experts and other stakeholders engaged in the assessment process, who provided input to the ICVCM regarding this Category.

2. Observations relating to Mine Methane methodologies

The Governing Board's observations regarding the assessment of mine methane capture and utilisation methodologies against the ICVCM Assessment Framework and its Core Carbon Principles generally relate to robust quantification and additionality.

The methodology considered by the Governing Board within this Category and to which these observations relate is ACM0008 – Abatement of methane from coal mines – versions 6 to 8 applied under Verra. ACR's methodology Capturing and Destroying Methane from Coal and Trona Mines in North America remains under assessment by ICVCM.

2.1. Category Details

The Mine Methane Capture and Utilisation Category comprises mitigation activities that aim to capture methane from coal mining operations or abandoned coal mines and destroy or utilise this methane to reduce greenhouse gas emissions. There are several different types of mine methane project, including Coal Mine Methane (CMM), Ventilation Air Methane (VAM), Open-Cast Mine Methane (OCM), and Abandoned Mine Methane (AMM).

The Governing Board recognises that mine methane methodologies operate within a broader policy context in which concerns have been raised regarding the potential for carbon market support to extend the operational life of coal mining assets.

Crediting under these methodologies is strictly limited to methane abatement and does not support or incentivise coal extraction, production, or consumption. Emission reductions are confined to the capture and destruction of methane that would otherwise be released during existing mining activities and do not account for emissions from coal combustion.

The Governing Board considers that mine methane abatement, when appropriately designed and verified, is consistent with the objective of supporting a net zero transition. Such activities should be understood as a targeted, near-term mitigation measure addressing a significant source of greenhouse gas emissions, and not as support for the continued role of coal or any fossil fuel in the energy system.

2.2. Additionality

Additionality is a fundamental principle of the carbon market. Emission reductions from a Mine Methane Capture and Utilisation project are considered additional if the project activities would not have occurred in the absence of carbon market incentives.

ACM0008 methodology under Verra allows the use of Verra's VT0009 Combined Baseline and Additionality Assessment Tool, which was published in October 2024. This tool improves the reliability of testing for additionality at the activity level compared to those that were previously allowed for use in this methodology[1]. However, the Governing Board has decided where an investment analysis is used in this tool, the Assessment Framework is only met where the economic performance of the mitigation activity increases decisively through carbon credit revenues and carbon credit revenues raise the relevant financial indicator to or above the required financial benchmark.

The Governing Board is aware of similar, qualitative approaches under the Paris Agreement Crediting Mechanism (PACM) (Article 6.4), that are designed to show that carbon revenues are decisive in overcoming financial barriers[2]. The Assessment Framework recognizes several ways to demonstrate additionality, provided they ensure a transparent and robust demonstration of that additionality[3].

2.3. Robust Quantification

The methods of quantification in Mine Methane Capture and Utilisation projects are known to vary by activity type. For Coal Mine Methane (CMM) and Ventilation Air Methane (VAM) activities, ICVCM's assessment concluded that the methodology generally relies on direct and continuous

[1] CDM Tool 2 Combined tool to identify the baseline scenario and demonstrate additionality
[2] https://unfccc.int/process-and-meetings/the-paris-agreement/article-6/article-64-pacm/mechanism-process/methodologies/a64-amt-002
[3] Please refer to ICVCM Assessment Framework Criterion 8.1: Additionality Demonstration, as well as to Paragraph 3.3 and footnote 6 of the ICVCM Assessment Procedure

measurement of methane flows, conservative default parameters, and established monitoring approaches. These elements were assessed as supporting robust quantification when appropriately applied and thus the Governing Board decided that only these activities applying this methodology met the relevant requirements of the Assessment Framework.

ICVCM's assessment identified that quantification approaches for Open-Cast Mine Methane (OCM) and Abandoned Mine Methane (AMM) present additional complexities. In these cases, estimates of baseline methane emissions and project impacts may depend on parameters and modelling approaches such as the radius of influence of boreholes, overlap between drainage areas, or assumptions regarding methane migration pathways and historical emissions. The assessment found that the methodology provides limited guidance on how uncertainty arising from these factors should be assessed, constrained, or conservatively treated.

The Governing Board notes that where quantification relies on model-based or spatial assumptions that are inherently uncertain, additional safeguards may help to reduce the likelihood of overestimation and strengthen confidence in quantified outcomes.

More broadly, the Governing Board observes that methane mitigation technologies and practices continue to evolve, including in relation to monitoring techniques, measurement accuracy, and the scientific understanding of methane behaviour in complex mine environments. As with other technically complex Categories, the Governing Board recognises that further empirical evidence and operational experience may inform future refinements to quantification approaches.

The Governing Board, therefore, encourages CCP-Eligible Programs to remain attentive to these developments for future methodological updates, particularly as they relate to activities such as OCM and AMM.