

Terms of Reference (ToR)

Independent External Technical Review

Methodology: BCR0009 – Soil Organic Carbon (SOC) Stock Increase by Adding High Organic Content from Anaerobic Digestate (Version 2.0, Public Consultation Draft)

1. Background

BioCarbon Standard has developed the methodology BCR0009 – Soil Organic Carbon (SOC) Stock increase by adding high organic content from Anaerobic Digestate (Version 2.0), currently under public consultation. The consultation documents are publicly available at: <https://biocarbonstandard.com/en/public-consultation/>.

In line with the BioCarbon methodological governance framework, and consistent with international best practices for environmental integrity, the methodology is subject to independent external technical review.

This review supports methodological robustness, transparency, and alignment with principles consistent with the eligibility frameworks, including avoidance of over-crediting, conservativeness, additionality, permanence, and avoidance of double counting.

2. Objective of the Review

The objective of the independent external review is to assess whether the methodology:

- (a) Ensures environmental integrity and conservativeness;
- (b) Avoids systematic overestimation of mitigation outcomes;
- (c) Applies scientifically robust and transparent quantification approaches;
- (d) Is consistent with relevant IPCC AFOLU guidance and internationally recognized soil carbon accounting practices;
- (e) Adequately addresses additionality, baseline integrity, leakage, permanence, uncertainty, and double counting.

The review shall identify any material risks affecting credibility, environmental integrity, or consistency with high-integrity carbon market standards.

3. Scope of Work

The external reviewer shall assess at minimum:

(a) Applicability and Eligibility

- (i) Clarity and enforceability of eligibility criteria;
- (ii) Consistency with AFOLU accounting principles.

(b) Baseline and Additionality

- (i) Robustness of baseline determination;
- (ii) Treatment of regulatory surplus and common practice;
- (iii) Consistency between baseline and additionality demonstration.

(c) Quantification Approach

- (i) Scientific validity of SOC stock-change approach;
- (ii) Sampling design and statistical representativeness;
- (iii) Laboratory and measurement methods;
- (iv) Treatment of non-CO₂ emissions;
- (v) Conservativeness of parameter selection.

(d) Uncertainty and Conservativeness

- (i) Application of uncertainty assessment;
- (ii) Use of conservative assumptions;
- (iii) Safeguards against over-crediting.

(e) Permanence and Reversal Risk

- (i) Identification and classification of reversal risks;
- (ii) Adequacy of monitoring and compensation mechanisms.

(f) Leakage

- (i) Identification and treatment of activity-shifting and market leakage risks.

(g) Avoidance of Double Counting

- (ii) Consistency with national accounting interaction provisions;
- (iii) Application of exclusive claim principles.

(h) Transparency and Replicability

- (i) Clarity of equations and methodological steps;
- (ii) Reproducibility of quantification procedures;
- (iii) Internal consistency across sections.

4. Deliverables

The external reviewer shall provide:

- (a) A written independent technical review report;
- (b) Identification of material methodological risks, if any;
- (c) Clear, structured recommendations for improvement;
- (d) An overall conclusion regarding methodological robustness and integrity.

The report shall distinguish between critical issues and advisory recommendations.

5. Eligibility Requirements for Applicants

Applicants shall demonstrate:

- (a) Advanced academic qualifications in soil science, carbon accounting, AFOLU systems, or related disciplines;
- (b) Demonstrated experience in GHG methodology development, validation, or evaluation;
- (c) Expertise in SOC quantification and statistical sampling;
- (d) Familiarity with IPCC AFOLU guidance;
- (e) Understanding of high-integrity carbon market principles (e.g., CCPs, CORSIA);
- (f) Absence of conflicts of interest.

Applicants shall disclose any past or present involvement in the development of this methodology.

6. Selection Process

BioCarbon shall evaluate proposals through a documented, merit-based process, applying criteria related to:

- (a) Technical competence;
- (b) Relevant sectoral expertise;

- (c) Independence and conflict-of-interest screening;
- (d) Capacity to complete the review within the specified timeline.

7. Independence and Financial Arrangements

To safeguard independence:

- (a) The external reviewer shall not have participated in the development of the methodology;
- (b) The reviewer shall sign a conflict-of-interest declaration;
- (c) All costs associated with the review shall be borne exclusively by BioCarbon.

8. Timeline

The external review is expected to be completed within 2 weeks from contract signature.