

Template for New Methodologies

Template including aspects of methodology, project boundary, detailed inspection procedure

Introduction to usage and applicability of this document:

This template is for the development of carbon accounting methodologies and methodology revisions for Carbon Removal Projects under Carbon Standards International.

Please send in your request to standards@carbon-standards.com

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1. Instructions

This document is set out as a guideline for developing and submitting a new methodology to CSI according to its methodology requirements. Instructions for completing this template are included under each section heading.

The instructions provided in this document do not exhaustively list all requirements set out in the guiding documents.

Proposed methodologies should use clear, concise, logical language and utilize scientific nomenclature with metric units where appropriate. Using figures, summary tables and equations to explain and illustrate processes or system interactions is encouraged to facilitate comprehension and readability.

Detailed background information, explanations, or justifications of key concepts of the methodology should be included in Appendices, which are to be referred to in the main text of the methodology.

2. Name and details of the methodology

Title	Name of the methodology
Type	Methodology
Developed by	Independent individual or entities that developed the methodology
Prepared by	Individual or entities that prepared this document
Logo	Logo of methodology
Contact	Physical address, telephone, email, website
Version	Version number of the proposed methodology
Date of Issue	DD-Month-YYY this version of the document issued

3. Sources

Reference following sources here:

- Documents published by CSI like rulings, other methodologies, etc. on which this document is based
- Documents published by other standards like rulings, other methodologies, which are used in this document.
- Scientific literature used to justify approaches and assumptions.

4. Background and summary of the proposed Carbon Removal Method

Please provide a summary of the proposed methodology including brief information on the background.

5. Technology/project/removal method presentation

5.1 Definitions

Using the format in the example below, provide, in alphabetical order, definitions of key terms and acronyms that are used in the methodology. Ensure all defined terms are used in the methodology.

Term	Definition

5.2 Removal principles

CO₂ Removal projects consist of two components:

5.2.1 Capture

Capture of CO₂ can happen biologically, e.g. by plant growth, and technically, e.g. by technical absorption of CO₂

Please describe, how CO₂ is captured by the technology described in this methodology.

Describe the Carbon Capture mechanism that is being proposed in this methodology. Describe both the technology and the stoichiometry of the carbon removal method proposed as well as potential by-products generated.

Clearly outline any current knowledge gaps regarding this approach as well as proposed mechanisms to deal with this uncertainty. Any foundational assumptions, estimates or models should be clearly outlined and explained.

5.2.2 Storage

The captured CO₂ needs to be stored permanently. This can either happen by storage of gaseous CO₂ or the elementary carbon C.

Please describe how the CO₂ or C is stored permanently and the time for which the storage is granted.

Describe the carbon removal storage mechanism proposed in this method. Describe both the technology and the stoichiometry of the carbon storage method proposed as well as its durability.

Clearly outline any current knowledge gaps regarding this approach as well as proposed mechanisms to deal with this uncertainty.

5.3 Applicability criteria

Please define criteria, upon which this methodology is applicable. These criteria should reduce the scope of the methodology to a level, that the project boundary is clear, that the baseline is applicable and that the carbon removal accounting can be clearly outlined and capture all relevant emissions and removals.

5.4 Greenhouse gas emissions included

Source		Gas	Included?	Justification / Explanation
Baseline	Source 1	CO ₂	Yes	
		CH ₄	No	
		N ₂ O	No	
	Source 2	CO ₂	Yes	
		CH ₄	No	
		N ₂ O	No	
Project activity	Source 1	CO ₂	Yes	
		CH ₄	No	
		N ₂ O	No	
	Source 2	CO ₂	Yes	
		CH ₄	No	
		N ₂ O	No	

5.5 Defining project boundaries

Please describe the boundaries including all emissions and the carbon removal covered by the methodology. Note that emissions inside the boundaries are to be considered as Project Emissions and emissions outside the project boundaries are Leakage Emissions.

Add a sketch outlining the project boundary.

5.6 Baseline situation

Please describe the baseline situation. In most cases of Carbon Removals, this may be the continuation of the existing situation. In particular cases hypothetical baselines may be selected. Please justify, why the selected baseline scenario is applicable for the methodology.

5.7 Additionality

Please describe the required additionality test of the proposed technology type under this methodology. Consider existing additionality argumentation on standard level.

Tools like the CDM Tool for additionality provide a good basis for the additionality test.

5.8 Carbon Removal Accounting

In this section the accounting of the achieved by the removal technology shall be described. The following core principle should be followed.

Basic formula.

$$\text{NCR} = \text{GER} - \text{PE} - \text{LE}$$

NCR	Net Carbon Removals (t CO ₂ e/yr); removal value for which certificates can be issued.
GCR	Gross Carbon Removals (t CO ₂ e/yr)
PE	Project Emissions (t CO ₂ e/yr); emissions inside the project boundaries like transport emissions, emissions of the removal technology, etc.
LE	Leakage Emissions (t CO ₂ e/yr); emissions outside the project boundaries.

Gross Carbon Removals shall be calculated as a result of the applied removal technology, Net Carbon Removals result after deduction of Project and Leakage Emissions.

The Carbon removal accounting methodology shall be divided into three sub-sections:

- Measuring and calculating project emissions
- Measuring and calculating gross carbon removal - Science, uncertainties/error margins + current knowledge gaps
- Principles for calculating net removals

5.9 Monitoring data

Please describe parameters of data which need to be monitored in this section.

Fixed parameters:

Parameters, which are fixed for the crediting period of the project

Variable parameters:

Parameters which need to be monitored frequently.

List all parameters that are monitored and how these are measured.

The following form shall be filled for each parameter used in the methodology:

Data/Parameter	<i>Name of parameter</i>
Unit	<i>e.g tons /yr</i>
Description	<i>Verbal description</i>
Source of data	<i>For fixed parameters please provide the literature-source</i> <i>For variable parameters: measurement, other data source like investigation, questionnaire, etc</i>
Value(s) applied	<i>Value of the parameter</i>
Choice of data or Measurement methods and procedures	<i>Measurement method</i>
Purpose of data	<i>Referring to formula and purpose</i>
Additional comment	

Copy the table as necessary for each data/parameter

5.10 Monitoring safeguards

Please describe here how the permanent removal of carbon can be documented. Requirements can tracking systems for the achieved carbon removal or similar measures, which help to ensure that

- the claimed carbon removal has been achieved, and
- is permanent

Tracking systems need to be approved by Carbon Standards International.

5.11 Verification/validation and inspection/certification procedure

Please describe the verification/validation and inspection/certification procedure. The procedure has to meet the requirement of CSI, mentioned in the documents 12_706EN and 12_709EN. The verification/validation body and inspection/certification body needs to be an independent third party who meet the requirements of CSI, mentioned in document 12_704EN.