CERCARBONO
Certified Carbon Standard

Cercarbono's Protocol for Voluntary Carbon Certification

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Version 4.5.2

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Acronyms and abbreviations

BoD	Board of Directors
BTR	Biennial Transparency Report
CCMP	Climate Change Mitigation Program or Project
CCU	Carbon Capture, Utilisation and Storage
CDM	Clean Development Mechanism
Cen	Coordinating Entity
CEO	Chief Executive Officer
DOE	Designated Operational Entity
EE	Energy efficiency
FREL	Forest Reference Emission Level
FS	Fuel or feedstock switch
GHG	Greenhouse Gases
GHG-Av	GHG emissions avoidance
GHG-Dest	GHG destruction
GHG-Disp	Displacement of a more-GHG-intensive output
GHG-Rem	GHG removal
IAF	International Accreditation Forum
ID	Identification number or code
IPCC	Intergovernmental Panel on Climate Change
ISO	International Organization for Standardization
ITMO	Internationally Transferred Mitigation Outcomes
LCE	Low Carbon Electricity
LPG	Liquefied Petroleum Gas
NDC	Nationally Determined Contributions
ONAC	National Accreditation Body (Colombia)
Pas	Climate Change Mitigation Programme Activities
PDD	Project Description Document
PFC	Perfluorocarbons
PoA	Program of Activities for Climate Change Mitigation
RDF	Refuse Derived Fuels
RE	Renewable energy
REDD+	Reduction of Emissions from Deforestation and Forest
SB	Stabilised biomass
SDGs	Sustainable Development Goals
UNFCCC	United Nations Framework Convention on Climate Change
VVB	Validation and Verification Body.

Terms and definitions

Terms and definitions guiding the understanding of this protocol and the carbon market context have been deposited in the ***Terms and Definitions of the Voluntary Certification Programme of Cercarbono***, available at www.cercarbono.com, section: Documentation.

Summary

This document is part of the regulatory framework of the Cercarbono international standard, for voluntary certification of credits obtained climate change mitigation initiatives, open to the participation of the different actors in the carbon markets.

In this document, governance and objectives are established (***Sections 2*** and ***3)***, as well as principles to be considered by different actors in the design and implementation of this type of initiatives (***Section 14***). In addition, the different sectoral scopes and areas used for their classification are presented (***Section 5***).

Guidelines related to elements that shall be considered for the design and implementation of these initiatives, such as the definition and functioning of the methodological technical framework, and the requirements and general criteria to be met regarding contents, applicability, additionality, eligibility, permanence criteria, assessment of baseline and project scenarios, emission sources and carbon pools, quantification of emissions and removals, and related procedures, as well as project types (***Sections 6*** and ***7***).

Provisions related to crediting period definition and elements favouring transparency and aimed to the use of appropriate practices for the design and implementation of those initiatives, such as related consultation mechanisms, comments or grievances, disclosure of their contribution to the Sustainable Development Goals and legal / documentary management requirements allowing active participation of stakeholders are included in ***Section 7***.

Validation and verification bodies (VVB) qualifications are also addressed (***Section 8***), while the project cycle of the initiatives and VVB participation in such cycle, including general handling of various situations that might arise, resulting from validation and verification processes, are described in ***Section 9***.

Description and links to the registry platform are shown in ***Section 10***, and ***Section 11*** deals with the general process for the migration of initiatives from other certification standards or programs into Cercarbono, while the features of official reports issued by Cercarbono, information regarding this document's validity, references and chronology of versions can be consulted in ***Sections 12*** to ***1515***.

This protocol has been crafted by Cercarbono's technical team and authorized for publication by its chief executive director (CEO). It is valid from its publication date and shall be revised and updated, as required, according to provisions on ***Section 13.1***.

The document ***Procedures of Cercarbono's Certification Programme***, available at: www.cercarbono.com, provides extended information regarding procedures associated with the different concepts covered in this protocol and along with it, constitute the backbone of Cercarbono carbon program's regulatory framework.

1 Introduction

Cercarbono is a certification standard with an international voluntary carbon certification program, under which certificates associated with Greenhouse Gas (GHG) removals and GHG emission reductions (see classification at ***Section 5***), achieved through climate change mitigation initiatives carried out in different sectoral areas[1] are issued. This voluntary certification occurs primarily in the framework of national, regional, corporate or individual initiatives or regulations, and may be linked to commitments countries have made before the United Nations Framework Convention on Climate Change (UNFCCC) to address climate change, as part of their Nationally Determined Contributions (NDCs), with ground the Kyoto Protocol in 1997 and the Paris Agreement in 2015 (Article 6 in particular).

In line with that Article, specifically sub-point 6.2 which contemplates market mechanisms aimed at voluntary cooperation between countries, the Cercarbono registry platform for Climate Change Mitigation Projects and Programs, EcoRegistry (see ***Section 9***) has been designed, and continuously updated, to facilitate data exchange and integration with other registries and to contribute to the meta-registration of the international emissions market aiming to prevent double counting, facilitating national GHG accounting and enabling safe, reliable international transfers of carbon credits between countries. In this regard, Cercarbono comprehensively and accurately identifies the characteristics of its credits based on 13 independent parameters that allow the attributes associated with each credit to be unequivocally identified.

For their part, the different countries are developing different regulatory or voluntary schemes to encourage compliance of their GHG emissions mitigation targets, in which the development of Climate Change Mitigation Programmes or Projects (CCMP) and the purchase of carbon credits from this type of initiatives are incentivized.

This protocol describes the certification process and the requirements that CCMPs must meet to obtain the issuance of carbon credits through the international Cercarbono certification program, which are unique, real, and measurable credits designated as “Carboncer”.

This way, CCMP holders, Carboncer buyers and sellers or any other entity participating in the international voluntary carbon market can count on the support of adequate, reliable, impartial, transparent, and relevant validation, verification, and certification processes.

[1] To develop climate change mitigation initiatives, the UNFCCC established 15 sectoral areas: 1. Energy industries; 2. Energy distribution; 3. Energy demand; 4: Manufacturing industries; 5.Chemical industries; 6. Construction; 7. Transport; 8. Mining/mineral production; 9. Metal production; 10. Fugitive emissions from fuels; 11. Fugitive emissions from production and consumption of halocarbons and sulphur hexafluoride; 12. Use of solvents; 13. Waste management and disposal; 14. Forestation and reforestation. Cercarbono covers 14 of these sectors, grouped and described in ***Section 5***.

The protocol, while providing some guidelines on the validation and verification processes[2], focuses on defining the principles governing the CCMPs' carbon credits certification process, including subjects such as the features of those GHG reductions or GHG removals, nominated as carbon credit units, or the project migration or carbon credit conversion from other programs recognized by Cercarbono, as well as some methodological point aspects. Nonetheless, details on involved procedures are included in the document ***Procedures of Cercarbono's Certification Programme***, available at: www.cercarbono.com, while methodological aspects specific to different CCMP types are defined in the methodologies approved or accepted by Cercarbono.

The protocol is based, or refers, ***ISO 14064-2:2019***, ***ISO 14064-3:2019***, ***ISO 14065:2020 ISO 14066:2023***, and ***ISO/IEC 17029:2019*** and[3]. Its structure is global and is governed by the requirements of international voluntary carbon markets. It also considers and adopts the regulations established by a given country for its local carbon market or those governing specific offset mechanism according to the final use or destination of carbon credits.

[2] The Validation and Verification Bodies (VVBs) authorised by Cercarbono are listed in ***Section 8***.
[3] See ***Section 13.3***.

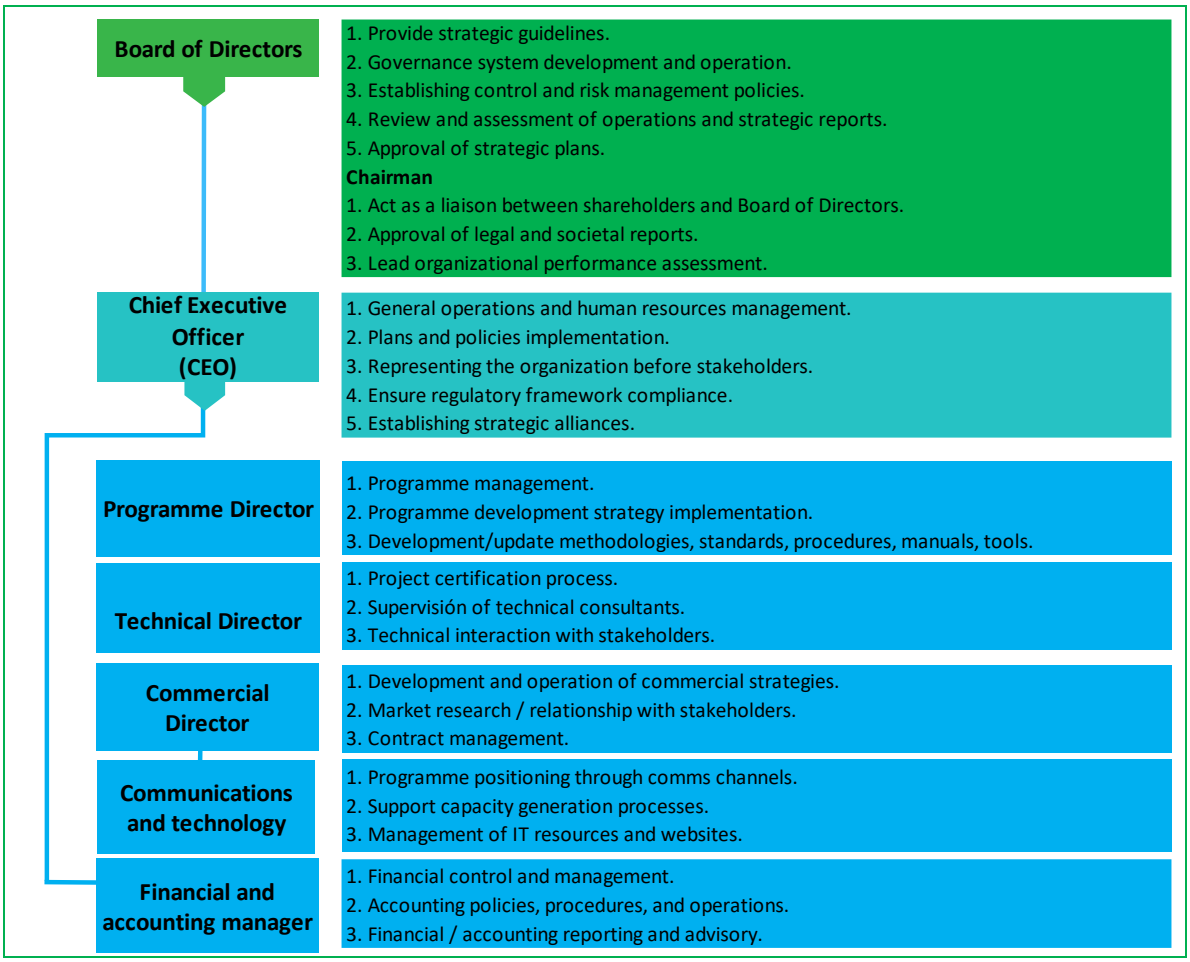
2 Cercarbono's governance

Cercarbono's voluntary carbon certification program sets up its governance through the articulation of different levels of its organization to implement a decision-making process, governing its supervision, functioning and control, which has been compiled in the document ***Cercarbono Governance Overview***, available at: www.cercarbono.com, section: Documentation.

In such document, functions and control scope, as well as general responsibilities of the different structures and positions within Cercarbono's organizational structure, related to the relevant decision-making process for Cercarbono's program operation.

Figure 1 presents the organisational and governance structure of the Cercarbono voluntary carbon certification programme.

Figure 1. Cercarbono organization chart.



Source: Cercarbono Governance Overview.

The document ***Cercarbono Governance Overview***, includes a detailed description on the way the Board of Directors (BoD), interacts with Cercarbono's operational structure, under

the wing of the Chief Executive Officer (CEO), in issues related to communication and participation in the various decision-making processes of the organization and the responsibilities of each direction or area, as applicable, including the establishment of committees of different nature for the assessment of non-routine issues and for addressing established procedures as per in Cercarbono's regulatory framework so requiring, as well as potential participation of external staff in cases it is warranted.

The types and nature of various situations requiring decision-making are also described in the document ***Cercarbono Governance Overview***, available at: www.cercarbono.com, section: Documentation.

3 Voluntary carbon certification program objectives

The general objective of this program is to contribute to global climate change mitigation efforts through certification of CCMPs based on principles ensuring the highest quality, integrity, transparency, and efficiency, following best international practices, and updated according to carbon markets' needs.

Following, specific objectives are listed:

- Promoting the international dynamics of the carbon market, generating trust through transparency in its actions and providing greater accessibility using technologies facilitating information management and access.
- Aligning climate change mitigation objectives generated at the international level with the requirements of the Cercarbono program, as a guarantee of legal compliance of CCMPs.
- Consolidating a registration system that complies with the rigorous carbon market requirements, generating assurance and transparency for all CCMPs participating in the program.
- Updating, assessment, and approval of guidelines or methodologies for CCMPs development, which can be adapted to the particularities of the different sectorial areas, while complying with regulations and with the goal of promoting initiatives generating real and proven GHG removals, and GHG emission reductions.
- Supporting and coordinating actions that contribute to the fulfilment of the Sustainable Development Goals (SDGs) by CCMPs.
- Registering and certifying CCMPs that meet the criteria set out in this protocol.
- Promote a friendly, efficient, and effective environment with interaction between all actors involved in the project cycle.

4 Principles

The principles listed in this section set out the fundamental rules or concepts governing Cercarbono's international voluntary carbon certification programme.

The objective behind their application is ensuring carbon credits certified under this program possess high integrity, which is understood ad they can be verified and constitute a real contribution to climate change mitigation out of any reasonable doubt, which in turn reinforce the confidence in carbon voluntary markets, paramount for the continuation and expansion of these initiatives.

These principles shall be considered by the holder or developer of the program or project[4] in the design and implementation of climate change initiatives. These shall make explicit reference to the way they have been applied.

During the validation and verification processes, Validation and Verification Bodies (VVBs), according with applicable criteria and regulations, shall explicitly confirm CCMP's compliance with such principles, referencing them in audit reports.

4.1 Principles to be considered by CCMPs

Listed below are the principles that shall be considered by CCMP holders, developers and any other actor aiming to have their climate change mitigation initiatives certified under Cercarbono.

Correct application and compliance with such principles shall be assured and supervised according to the standard's regulatory framework.

Accuracy

Quantifications, considerations, and measurements performed in CCMPs agree with or are reasonably close to actual values, reducing bias and uncertainty.

Coherence

CCMP information presented shall allow for adequate comparison of parameters, application considerations, calculations and results over time.

To that end, documenting and ensuring communication about any modification to data, scope, calculation methods or any other factor relevant for the time series to Cercarbono and other interested parties is required, as well as performing necessary adjustments, as applicable, to allow adequate comparability.

Calculations performed by the CCMP must be replicable and technically validated, so that they can generate coherent, well-supported results.

[4] Throughout this document also referred to as the CCMP holder or developer.

Comparability

The results obtained by the CCMP activity should be comparable against the use of methodologies, guidelines, and protocols, among others, so that the estimation and calculation of GHG emissions and removals and GHG emission reductions achieved by the CCMP can be independently assessed and homologated.

Comprehensiveness

All relevant information supporting decision-making must be included, minimizing uncertainty, increasing confidence in the data and results expected or achieved by the CCMP, as well as the procedures followed to reach those results, generating comprehensive, accurate, consistent, comparable, complete, and replicable accounting, and reporting of the GHG emissions and removals, and GHG emission reductions considered.

Completeness

All relevant information allowing detailed knowledge, according to selected methodology, of relevant CCMP features shall be included, as well as considerations made, GHG emission sources and calculation methods employed, along with complete information regarding significant[5] base line, project, and leakage GHG emissions, so it can be adequately assessed and replicated for evaluation purposes.

Consistency

Assumptions, values and procedures used in the CCMP for calculation of GHG emissions and removals and GHG emission reductions shall be technically correct, coherent, comparable, and replicable.

Conservatism

Conservative assumptions, methodologies, values, and procedures shall be used to ensure CCMP GHG emissions are not underestimated and CCMP GHG removals and GHG emission reductions are not overestimated.

Given the feasibility of using two or more values for the same parameter at the same scale, the most conservative should be used.

Evidence

The evidence used by the CCMP must be sufficient and appropriate to ensure rational, reliable, and replicable methods are used to guarantee GHG removals and GHG emission reductions are real and correctly calculated.

[5] Sources that added up do not surpass the materiality threshold defined for the program, referred to total emissions generated by the CCMP throughout its result-accounting period (see section ***CCMP Validation*** in the document: ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com).

Integrity

All relevant GHG emission sources and carbon pools should be included along with quantification of their GHG emissions and removals in the baseline scenario, as well as GHG emissions and removals and GHG emission reductions generated in the project scenario, using data and parameters from recognised sources, as well as technically supported modelling allowing guaranteeing additionality and real contribution to climate change mitigation from GHG reductions or removals generated by CCMP certified under Cercarbono.

No net harm

All CCMPs must ensure that the mitigation activity covered by the project does not produce net harm in environmental, social, or economical terms. To this end, they shall comply with the ***Safeguarding Principles and Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

Precision

Efforts should be made to reduce the variability or dispersion of the information obtained by measurement of parameters allowing the determination of the magnitude of GHG emissions and removals and GHG emission reductions of the CCMP.

Relevance

Selected methodology, as well as all information disclosed by the CCMP, including sources, sinks, pools, considerations regarding baseline, project and leakage scenarios, shall be appropriate and to the sector it pertains, providing relevant information from recognized sources, covering the needs of actors involved in the certification process, in such a way the CCMP becomes an ideal, effective mechanism to achieve GHG reductions and/or removals.

Reliability

Data and parameters from recognised sources[6] must be used, as well as technically substantiated models that support the GHG removals and GHG emission reductions calculated, accounted for, or monitored by the CCMP. The data, variables, and parameters must be representative of the reality or context in which the CCMP is developed, so direct measurement methods that integrate statistical representativeness are encouraged.

Recognised sources are those included in the Good Practice Guidance of the Intergovernmental Panel on Climate Change (IPCC) in its most updated version, or in previous versions if their use is technically justified, as well as the methodological tools of the Clean Development Mechanism (CDM). Academic articles published in indexed journals are also valid.

[6] Recognized sources are those included in the Good Practice Guidance of the Intergovernmental Panel on Climate change (IPCC) in its most recent version, or in previous versions if their use is technically justified, as well as tools from the Clean Development Mechanism (CDM), or the one substituting it. In certain contexts and uses, information generated by recognized institutions at a national or sub-national level, as well as academic articles published in indexed journals can be complementary to recognized sources.

Transparency

Genuine, clear, honest, justified, justified, appropriate, understandable, truthful, timely, traceable, solid, sufficient, and auditable information related to the CCMP's procedures, assumptions, processes, and intrinsic limitations should be used, so that reliability and credibility of its GHG removal and GHG emission reduction results can be guaranteed. All references and sources of information shall be explicitly mentioned and made available to third parties, ensuring it remains public on a permanent basis[7], so that any calculations can be reconstructed and generate results equal to those obtained by the CCMP.

4.2 Principles considered and characteristics of carbon credits

The characteristics inherent to carbon credits, resulting from rigorous application of the principles CCMPs shall consider, as attested by validation, verification, and certification processes are presented below. Stakeholders involved in these processes shall supervise and support compliance with them.

It is also important to keep in mind, carbon credits generated by GHG removal, or GHG emission reduction shall use control technologies effectively contributing to transition towards "net zero emissions" goal.

Carbon credits generated by GHG removal or GHG emissions reduction program or project are managed through EcoRegistry, Cercarbono's registry platform, which allows reliable, safe, and unique identification of such carbon credits, as well as storage and public availability in electronic format, of all relevant information and the individual, unique registration and follow-up of CCMP and issued credits which shall be:

Additional

Carbon credits generated by CCMPs shall correspond to GHG removals or emissions reduction which have demonstrated their additionality as a requirement to participate in the carbon market. For this purpose, CCMPs shall use ***Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives***, available at www.cercarbono.com, section: Documentation.

Independently verified

All GHG removals and GHG emission reductions generated by the CCMP shall be verified with a reasonable level of assurance by an independent verification body, approved by Cercarbono and accredited in the sector in which it is being undertaken (see ***Section 8***).

Measurable

All GHG emissions and removals and GHG emission reductions generated by the CCMP shall be quantified with technical rigor and conservative approach, considering, and comparing them against a credible baseline scenario.

[7] Unless the holder of a CCMP justifies valid reasons for not making public certain information piece(s), all information shall be publicly available.

To this end, CCMPs have available different technical documents developed or authorized by Cercarbono, including its approved methodologies and regulatory guidelines, available at www.cercarbono.com.

No double counting

A tonne of carbon dioxide equivalent (tCO_2e) resulting from GHG removals or GHG emission reductions generated by the CCMP cannot:

- Be accounted for more than once to demonstrate compliance with the same GHG mitigation target or to demonstrate compliance with more than one GHG mitigation target (double use).
- Used more than once to obtain remuneration, benefits, or incentives (double claim).
- Be verified, certified, or accredited through the implementation of more than one GHG mitigation initiative (double issuance).

Complementary elements to this principle are provided in the ***Procedures of Cercarbono's Certification Programme*** document, available at www.cercarbono.com, section: Documentation, as well as more extended explanation on relevant situations for the application of this principle.

Permanent

Carbon credits generated by CCMPs shall be permanent over a 100-year horizon.

GHG removal programs or projects presenting a risk of reversal of GHG removals to the atmosphere shall use ***Cercarbono Guidelines for the Management of Permanence and Reversal Risk in Climate Change Mitigation Initiatives in the Land-Use Sector***, developed to face such risk and have the possibility to compensate potential reversals, available at www.cercarbono.com, section: Documentation.

Real

All GHG removals and GHG emission reductions generated by the CCMP must be shown to have occurred.

Unique

Each GHG removal unit and each GHG emission reduction unit is associated with a single carbon credit, corresponding to one tonne of carbon dioxide equivalent (tCO_2e).

4.3 Principles to be considered by VVBs

The following principles shall be considered by accredited VVBs, in accordance with *ISO/IEC 17029:2019 and ISO 14065:2020*, thereby supporting that the validation and verification statement complies with the requirements specified in this protocol.

Competence

Staff have the knowledge, skills, experience, training, supporting infrastructure, and capacity to effectively perform the activities in the validation and verification processes.

Confidentiality

Confidential information obtained or created during validation and verification activities is protected and not improperly disclosed.

Impartiality

Decisions made by the VVB are based on objective evidence obtained throughout the validation and verification processes and are not influenced by other interests or parties. Threats to impartiality may include:

- **Self-interest:** a threat that comes from a person or entity acting out of self-interest. An example of a threat to impartiality in validation and verification processes is financial self-interest.
- **Self-review:** a threat that arises when a person or entity reviews work done by themselves.
- **Familiarity (or trust):** a threat that arises when a person or entity is overly familiar or trusting of another person rather than seeking evidence to support the validation and verification processes.
- **Intimidation:** a threat that arises from a person or entity having the perception of being overtly or covertly coerced, such as the threat of being replaced or reporting a supervisor.

Openness

The VVB must provide public access to or disclose information on its validation and verification process in a timely manner.

Professional scepticism

Attitude of personnel involved in validation and verification processes, based on recognition of potential circumstances that may cause a material error in a validation and verification statement. Therefore, any assertions made in the PDD or monitoring report shall be supported by complete and reliable evidence.

Responsiveness to complaints

Parties involved in the validation and verification processes may submit complaints. These shall be handled and resolved appropriately and timely according to Cercarbono's procedures.

Responsibility

The client, not the VVB, is responsible for the declared information, as well as for its conformity with the specified and applicable requirements. The VVB has the responsibility, a validation and verification statement is based on objective, sufficient and appropriate evidence.

In addition to complying with the above referred principles, the VVB must have a documented description of its legal status including, as applicable, the names of its owners and those of the persons controlling it, in addition to having an organizational structure, management, and operational control.

Risk-based approach

The VVB must consider the risks associated with providing competent, consistent, and impartial services in the validation and verification processes. Risks may include:

- Non-compliance with the objectives of the validation and verification processes and the requirements of the certification programme.
- Actual and perceived lack of competence, consistency, and impartiality.
- Legal, regulatory, and liability issues.
- Inherent risks associated with the client's organization where the validation and verification processes are carried out, such as its system management, operating environment, geographical location, among others.
- The susceptibility of any parameter included in the claim to generate a material error, even if there is a control system in place.
- The possibility of not achieving the required level of assurance, among other situations, barriers to collection of evidence used in the validation and verification processes must be reasonable (≥ 95 %) in accordance with this protocol and ISOs 14064-2, 14064-3 and 14065, or those complementing or substituting them.
- Non-objective stakeholder perception.
- Misleading claims or misuse of trademarks by the customer.
- Poor management of risk control and improvement opportunities.

4.4 Principles to be considered in validation and verification processes

The following are the principles to be considered by VVBs in validation and verification processes in accordance with *ISO 14065:2020* and *ISO/IEC 17029:2019* Standards.

Documentation

The validation and verification processes are documented and establish the basis for the conclusion and decision on the conformity of the validation and verification statement with the specified requirements.

Evidence-based approach for decision making

Validation and verification processes must implement methods to reach reliable and reproducible conclusions based on objective, sufficient, and appropriate evidence. The validation and verification statement are based on evidence gathered through an objective validation and verification process.

Fair presentation

During validation and verification processes, findings, conclusions, and statements, including significant obstacles encountered during these processes, as well as unresolved divergent opinions between the VVB and the client shall be truthfully and accurately presented.

As set out in *ISO/IEC 17029:2019*, VVBs shall have a consistent validation and verification program to carry out validation and verification processes considering the following elements:

- The scope of validation and verification.
- The specific competence criteria for the validation and verification team, and VVB as a whole.
- The validation and verification process.
- The evidence gathering activities during validation and verification.
- The validation and verification reports.

The following steps must be also completed in the validation and verification process:

- Establish a pre-commitment.
- Establish a final commitment.
- Validation and verification process planning[8].
- Perform the validation and verification process.
- Documents and evidence review.
- Decide on and issue a validation and verification statement.
- If appropriate, generate post-validation and verification statement issuance findings.
- Process appeals.
- Handle claims and complaints.
- Records generation.

[8] A strategic analysis is necessary to understand the nature and complexity of the PDD and to determine the scope of validation and verification activities based on the type of commitment, as well as to assess the risk of non-compliance with the criteria. The level of assurance and materiality is included in the plan.

5 Scope

This protocol is applicable to process and activities related with the registration of CCMPs and for the certification and issuance of carbon credits -Carboncer- from CCMPs under Cercarbono's voluntary carbon certification program.

Activities allowed under the Cercarbono programme can be presented at program or project level and implemented in different countries according to their domestic regulations in line with the international voluntary carbon market and in compliance with the provisions of this protocol. According to the amount of GHGs removed or GHG emissions reduced by a CCMP during its crediting period, they can be considered in one of the two types of scale covered by Cercarbono:

CCMP Type 1: those removing or reducing on average 10,000 or more tCO_2e per year.

CCMP Type 2: those removing or reducing on average less than 10,000 t CO_2e per year.

Once the CCMP has been registered and has passed the validation stage it cannot change its scale.

CCMPs, according to their type and conditions, should use methodologies approved by Cercarbono. Cercarbono´s own methodologies do not make a scale differentiation, but CCMPs must consider the applicability requirements of the selected methodology(ies).

5.1 CCMP activities

According to the sector, CCMPs can consider the following activities:

- GHG removal (**GHG-Rem**): activity that, through plant photosynthesis, removes CO_2 from the atmosphere, and stores it in the form of biomass in different carbon pools, or through CO_2 removal from the atmosphere using physical or chemical processes, storing it in permanent or semi-permanent reservoirs.
- GHG emissions reduction[9], which includes:
  - **Displacement of a more-GHG-intensive output (GHG-Disp):** adoption of technologies or processes that displace more GHG-intensive production. Includes:
    - **Renewable energy (RE):** generation or use of energy from hydro, photovoltaic, wind, geothermal, ocean, thermal gradient, and biomass renewable sources. It may include RE based only cogeneration or tri-generation actions (electricity, heat and cold).

[9] Regulatory frameworks often highlight only GHG emission reduction activity without delving into the differences within this climate change mitigation outcome. Therefore, actions such as GHG emissions displacement (including renewable energy and low carbon electricity), energy efficiency, fuel or feedstock switching efficiency, avoidance, and destruction of GHG are considered under the GHG emissions reduction activity. Cercarbono, under this protocol, sets out the differences that exist between these programme or project actions or activities, which are highlighted (where applicable) in the issuance of carbon credits earned under a GHG emission reduction.

  - **Low carbon electricity (LCE):** power generation based on lower GHG emitting fuels such as natural gas as compared to fuel oil, for example.

- **Energy efficiency (EE) (including technology change):** optimised generation or use of energy by implementing or renewing processes, machinery, tools, or technologies that require less energy demand to achieve the same performance or perform the same function more efficiently. It may include cogeneration or tri-generation actions.
- **Fuel or feedstock switching (FS):** implementation of fuel or feedstock switching with lower GHG emissions. Includes sources or power supply from hydrogen, hybrid, natural gas, Liquefied Petroleum Gas (LPG), biodiesel, or bioethanol sources, as well as alternative feedstock.
- **GHG emissions avoidance (GHG-Av)**: adoption of technologies or processes that reduce, control, or avoid GHG emissions to the atmosphere.
- **GHG destruction (GHG-Dest):** adoption of technologies or processes for this purpose. CCMPs often include the capture or recovery of GHGs. Destruction is achieved by combustion or catalytic conversion of GHGs.

The CCMPs may consider more than one programme or project activity simultaneously if they are justified and supported by a methodology. The Cercarbono voluntary certification Programme has an international geographical scope. CCMPs can be implemented anywhere in the world. However, a CCMP cannot be implemented in more than one country, but it can be implemented in different areas of a given country, as in the case of grouped projects (***Section 7.5***) or programme of activities (***Section 7.6***), providing they comply with the requirements of the Programme and the legal regulations of the country where they are implemented.

5.2 Sectoral areas

In line with the international carbon market and as adopted by the IPCC, the sectors covered by Cercarbono's voluntary certification programme for CCMP implementation are:

5.2.1 Energy sector

- **Energy generation:**

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching, avoidance and displacement (RE and LCE) of GHG emissions), reducing GHG emissions by GHG sources in power plants, power grids or facilities that supply energy.

- **Energy demand and distribution:**

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching and displacement (RE) of GHG emissions), reducing GHG emissions by GHG sources in power plants, energy networks or facilities that transmit or demand energy.

5.2.2 Industry sector

- **Manufacturing industry:**

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching, avoidance, destruction, and displacement (RE and LCE) of GHG emissions), reducing GHG emissions by GHG sources in manufacturing facilities or companies.

- **Chemical industry:**

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching, avoidance, destruction, and displacement (RE and LCE) of GHG emissions), reducing GHG emissions by GHG sources at chemical facilities or companies.

5.2.3 Construction sector

Corresponds to CCMP Type 2 activities (including fuel or feedstock switching and displacement (LCE) of GHG emissions), reducing GHG emissions from GHG sources in infrastructure construction.

5.2.4 Transport sector

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching and displacement (RE and LCE) of GHG emissions), reducing GHG emissions by GHG sources in companies owning or using automotive (public and private), aviation and maritime fleets.

5.2.5 Mining and mineral production sector

Corresponds to CCMP Type 1 and 2 activities (including fuel or feedstock switching, destruction and displacement (RE) of GHG emissions), reducing GHG emissions by GHG sources in mineral extraction or production plants or processes.

5.2.6 Metal production sector

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, fuel or feedstock switching, avoidance and displacement (RE) of GHG emissions), reducing GHG emissions by GHG sources in metal production plants or processes.

5.2.7 Fugitive emissions sector

- **Fugitive emissions from fuels:**

Corresponds to CCMP Type 1 and 2 activities (including avoidance and destruction), reducing GHG emissions from fugitive emissions of fuels.

- **Fugitive fuel emissions from the production and consumption of halocarbons and sulphur hexafluoride (SF6):**

Corresponds to CCMP Type 1 and 2 activities (including GHG avoidance and destruction), reducing GHG emissions from the production and consumption of halocarbons and SF_6.

5.2.8 Waste management sector

Corresponds to CCMP Type 1 and 2 activities (including energy efficiency, avoidance, destruction, and displacement (RE) of GHG emissions), reducing GHG emissions by GHG sources in solid and liquid waste management plants.

5.2.9 Land use sector

- **Forest land:**

Corresponds to CCMP Type 1 and 2 activities, removing GHG or reducing GHG emissions (GHG-Av) by sources in forested areas. Projects focused on reforestation, forest restoration or REDD+ may be developed.

- **Agricultural land:**

Corresponds to CCMP Type 1 and 2 activities (including fuel or feedstock switching, avoidance of GHG emissions), removing GHG or reducing GHG emissions by sources in agricultural areas.

- **Grass lands:**

Correspond to CCMP activities removing GHG or reducing GHG emissions (including fuel or feedstock shift, GHG avoidance and GHG destruction) in grass land areas.

- **Wetlands:**

Correspond to CCMP activities removing GHG or reducing GHG emissions (GHG avoidance by sources or pools) in wetland areas.

Table 1. Sectoral areas and CCMP mitigation mechanisms covered.

Sectoral scope		CCMP activities						
		GHG removals	GHG emission reductions					
			Energy efficiency	Fuel or feedstock switching	GHG emission avoidance	GHG destruction	Displacement of a more-GHG-intensive output	
							Renewable energy	Low carbon electricity
Energy	Generation	-	X	X	X	-	X	X
	Distribution	-	X	X	-	-	X	-
	Demand	-	X	X	-	-	X	-
Industry	Manufacturing	-	X	X	X	X	X	X
	Chemical	-	X	X	X	X	X	X
Construction		-	-	X	-	-	-	X
Transport		-	X	X	-	-	X	X
Mining and mineral production		-	-	X	X	X	X	-
Metal Production		-	X	X	X	-	X	-
Fugitive emissions	Fuels	-	-	-	X	X	-	-
	Halocarbon and sulphur hexafluoride production and consumption	-	-	-	X	X	-	-
Waste management		-	X	-	X	X	X	-
Land use	Forestry	X	-	-	X	-	-	-
	Agricultural	X	-	X	X	X	-	-
	Grassland	X	-	X	X	-	-	-
	Wetland	X	-	-	X	-	-	-

5.3 Use of the protocol and certification programme documents

Cercarbono's voluntary carbon certification programme is aligned with the international requirements of the voluntary carbon market and the various market mechanisms using carbon credits, while respecting and adopting requirements, regulations or decisions established in national contexts, with the final use or destination of the carbon credits determining the framework for action.

The Cercarbono regulatory framework consists of a set of complementary documents. The Protocol defines the principles and general requirements of the programme. The Procedures of Cercarbono's Certification Programme establish the operational procedures for implementing these requirements. Methodological tools and technical guidelines define the specific methods used to quantify, monitor and manage mitigation outcomes.

This protocol as well as the technical and informative documents that are part of the Cercarbono voluntary carbon certification programme have been prepared in English and Spanish.

It is mandatory to provide, as a minimum, the information requested in the Cercarbono templates (PDD, monitoring report, validation or verification report, validation, or verification statement, among others). The use of such templates is mandatory, except for projects migrating from other standards with a valid crediting period.

The use of previous versions of this protocol is only applicable to CCMPs already validated using them. For new validation processes (including revalidation), valid version of the protocol at the time such processes begin is to be applied. In this sense, the ***Cercarbono's Guidelines for the Use of Protocol's Versions by Holders, Developers and VVBs*** has been developed, available at: www.cercarbono.com.

6 Methodological subjects

This section describes how methodologies for the quantification of GHG removals or GHG emission reductions for CCMPs under Cercarbono standard, and deviation requests for them are developed and approved. For this purpose, fees have been established for review of such methodologies and deviation requests. Cercarbono's ***Fee schedule*** is available at www.cercarbono.com, section: Documentation.

6.1 Approved methodologies

Cercarbono has its own methodologies, developed in early stages of the program, in various sectors for CCMP implementation, which are updated and undergo a third-party review and are subject to public consultation. Apart from its methodologies, Cercarbono accepts the use of CDM methodologies that are in line with its policy framework and principles. The list of approved methodologies is available at www.cercarbono.com, section: Documentation.

Currently, Cercarbono does not develop methodologies for GHG removals or GHG emissions reduction. Based on this decision, and with the objective of maintaining criteria independence when certifying GHG removals or GHG emissions reduction from climate change mitigation initiatives, Cercarbono is open to approval of methodologies proposed and developed by third parties, according to what is established in ***Section 6.2***, as well as in the document ***Procedures of Cercarbono's Certification Programme***, available www.cercarbono.com, section: Documentation.

6.2 Approval of new methodologies

If a particular CCMP activity requires methodological approaches substantially different from those existing in Cercarbono's approved methodologies, an independent third party may propose an existing methodology under another standard or programme or propose a new methodology, following the procedures described in the ***Procedures of Cercarbono's Certification Programme***, available www.cercarbono.com, section: Documentation.

If the methodology is approved, it is included in the list of the program's approved methodologies and will be available for use by any party interested in developing CCMPs based on such methodology.

6.3 Request for methodological deviations

Methodological deviations are always project-specific, so they shall be requested based on a registered CCMP featuring a complete version of a project description document (PDD). In such document, it shall be clearly indicated to which sections and concepts the deviation is applied, as well as the impacts resulting from authorization (or not), of such deviation, regarding environmental results and general CCMP results, and the way related environmental declarations is to be preserved. Therefore, such request shall be made using the template Cercarbono has designed for such cases, which can be requested to: info@cercarbono.com.

In cases where an approved methodology is applicable to a project activity, but minor deviations[10] in its application are required due to project-specific circumstances not foreseen in the methodology, a deviation from an approved methodology can be requested by the holder to the VVB. The VVB decides, based on the program regulatory framework and applicable validation and verification standards, whether such deviation could be considered as potentially acceptable or as non-acceptable. In case it could be considered as potentially acceptable, the VVB shall perform a detailed assessment and deviation validation, considering methodological adjustments for the case, after informing and obtaining an OK from Cercarbono's Program Direction to proceed with such validation, using the template for methodological deviation request established by Cercarbono.

In other cases, the holder or the VVB representing him/her/it, shall submit the subject methodology deviation request directly to Cercarbono's Program Direction for its consideration, using the template established by Cercarbono. If it is detected, a deviation was not requested beforehand by the holder / developer and the VVB determines during the verification that the CCMP has deviated from the provisions of the methodology or the monitoring plan, the VVB will halt the verification and immediately communicate Cercarbono on this. At the same time, the VVB shall request the CCMP filling out the deviation request template and depending on its nature, could perform the assessment and given the case, proceed with the verification provided authorization to do so has been granted by Cercarbono. Else, the VVB shall refer the subject to the Carbon Program Direction, depending on the specific situation and giving attention to the points described in previous paragraphs.

When a deviation is requested, the period such deviation is intended to be applied shall be indicated, as this is a fundamental element to decide on its pertinence.

6.4 Request for methodological clarification

If an approved methodology is unclear or ambiguous in its methodological procedures, a written request for clarification can be submitted, which must also be responded in writing by Cercarbono's Carbon Program Direction.

6.5 Updating and/or overall review of approved methodologies

Cercarbono's own methodologies, as well as those that had been authorized to be used and do not belong to the CDM or the mechanism substituting it, shall be subject to an overall review and will be updated as necessary and each 5 years as a minimum, following their last review, assessing they comply with best practices and guidelines requested by international carbon markets. New versions of such methodologies, when revisions are applied to scope,

[10] Considered as minor deviations are: a) Application of alternative methods for measuring different parameters with like precision and accuracy as those methods described in the methodology; b) Utilization of data sources different from those indicated in the methodology, having similar reliability and acceptability levels; c) Selection of employed scenarios with adequate justification, more conservative than those established in the methodology; d) Using default factors or calculation/estimation techniques addressing project-specific situations not covered by the methodology.

applicability conditions, assessment of baseline or additionality, shall be subject to an independent third-party assessment.

In the case of CDM methodologies and tools or the versions substituting them when migrating to CDM's substitutive mechanisms, according to Article 6 of the Paris Agreement or other related processes, determinations, or institutions, a technical, functional, and operational review of each related new resolution or version, as well as to the time it is integrated or considered within Cercarbono's approved methodology set or its regulatory framework.

For this purpose, Cercarbono's Program Direction will maintain a record indicating, for each methodology, tool, resolution, process or institution, the date of the last technical review, a summary of changes from its previous version(s), as applicable, the review result (approved / not approved for CCMP use under Cercarbono), updated version number and clarification or regulatory framework changes needed, as a result of such revies, if applicable.

Any decision implying changes, adequations, criteria application, add-ons or modifications in form or substance to CDM's (or the mechanism substituting it) methodologies and tools, shall be published in Cercarbono's webpage and informed to holders, developers and VVBs related to CCMPs, or sectoral areas potentially affected by such decisions.

To ensure an updated database is available, a general review of current versions of such methodologies and tools will be undertaken each six months, considering the transition period as determined by CDM for application of new versions is around eight months.

At the same time, a permanent monitoring system on the transition of CDM methodologies to Paris Agreement Art. 6.4 will be established, where positioning before any change or consideration in need of disclosure to different actors involved with registered CCMP or those requesting registration will be communicated officially by Cercarbono, with monthly internal updates.

The concepts, calculation methods, procedures, and guidelines contained in CDM's (or its substituting mechanism) tools, directions, standards, and decisions, related to those methodologies, are applicable on a supplemental basis provided they are not specifically included in other Cercarbono's tools, regulatory framework documents or communications, which shall prevail over others for CCMPs in the project certification cycle under the standard.

In the document ***Procedures of Cercarbono's Certification Programme***, available at: www.cercarbono.com, section: Documentation, circumstances applicable to Cercarbono's non-CDM approved methodologies updates and overall review (including third-party review) are detailed, which shall be recorded in the corresponding table at section: ***Document history*** in each methodology.

7 CCMPs requirements

This section describes the different requirements and technical characteristics for CCMPs aiming to participate in Cercarbono's international voluntary carbon certification program to be accepted, based on *ISO 14064-2* standard or those complementing or substituting it.

Compliance with each of these requirements is assessed by Cercarbono, making sure they comply with what is established in the validation and verification processes, either performed on an independent basis (separate validation and verification events and reports, performed by different VVBs or both performed by the same VVB) or joint basis (validation and verification performed in due sequence (validation must always precede verification), in a single event and by the same VVB, generating a consolidated report[11]), by approved VVBs (see ***Sections 8*** and ***9***), thus ensuring traceability of each CCMP. CCMPs shall identify, consider, and use relevant, available criteria or procedures for each stage of the project cycle as described in ***Section 9***.

CCMPs may present their documentation according to the context in which carbon credits are intended to be commercialized: in English, for credits intended for the open international market or in contexts where Spanish is not the official language, or in any of these languages, according to applicable current regulations, in contexts where Spanish is the official language.

7.1 Components of the CCMP

The CCMP shall prepare a PDD in which the following elements are included:

- CCMP title and objective(s).
- Information on the CCMP holder and other participants, where applicable, detailing their roles and responsibilities, including contact and stakeholder information.
- Description of how the CCMP will achieve GHG removals or GHG emission reductions, including the specific types of GHGs it addresses.
- Sectoral scope of the programme or project and type of CCMP.
- CCMP location and boundaries, including organisational, geographical, and physical location information, enabling its unique identification and delimitation, following guidelines set up in the document ***Guidelines for Mapping Presentation and Analysis***, available at: www.cercarbono.com, section: Documentation, and uploading CCMP data as required in such guidelines into EcoRegistry. It shall be considered, a CCMP can only be developed in one country, but at the country level it can cover different geographical areas, as mentioned in ***Section 5.1***.
- Justification of the eligibility[12] and additionality of the CCMP.

[11] This type of audit occurs when a first validation and verification event is performed or when modifications to the PDD need to be validated in verification events other than the first one.
[12] From its participation in the Cercarbono programme standpoint.

- Detailed description and support information on the ownership or right of use of the area, facility, or process. The right of use can be demonstrated, inter alia, by means of lease or long-term mandate contracts or peaceful possession, among others, which are free from legal defects, issued by competent authorities, as applicable.
- Characteristics and conditions of the area, facility, or process, prior to the start of the CCMP.
- CCMP technologies, products, and services and the expected level of activity.
- Timeline or actual dates and justification for the following:
  - Duration or lifetime of the CCMP (in years): indicating start date of the activities (day.month.year), and the end date of the programme or project (day.month.year).
  - CCMP crediting period, indicating start and end dates (day.month.year).
  - The CCMP monitoring period, its frequency and reporting, including relevant CCMP activities at each stage of the project cycle, as appropriate.
  - Verification events' frequency, including periods in which they are to be performed or are being performed.
- Description and justification of the methodology selected and applied for the quantification of GHG removal or GHG emission reduction, as appropriate to the type of CCMP.
- Identification of the CCMP GHG emission sources and carbon pools in baseline and project scenarios, estimated or calculated as tCO2e.
- GHG emissions or removals in the baseline scenario, estimated or calculated as tCO2e, considering the use of values for global warming potential as per in the IPCC Fifth Assessment Report or those values superseding them.
- Total GHG removal or total GHG emission reduction that can occur in the project scenario, estimated, or calculated as tCO2e.
- Net GHG removal or net GHG emission reduction that can occur in the project scenario, estimated, or calculated as tCO2e.
- Leakage, if applicable, calculated in tCO2e.
- Monitoring plan. The monitoring plan is designed following the approved methodology, selected for the development of the CCMP.
- Authorizations and documents required by current legislation (including environmental legislation and their respective environmental impact assessments in line with the No Net Harm principle), governing the development and operation of the CCMP, depending on the type of programme or project.
- Relevant results of stakeholder consultations and mechanisms for ongoing communication, if applicable. Including definition regarding when and how affected or involved persons should be consulted.
- Identification of risks that could significantly affect GHG removal or GHG emission reductions, as well as measures to control such risks.
- Report on the contribution of the CCMPP to the achievement of the SDGs.

Cercarbono has ***Project Description Document*** templates, designed according to the sector and mitigation activity on which the CCMP is focused, available at www.cercarbono.com, section: Documentation.

7.2 CCMP start date

From the publication date of this protocol's version, Cercarbono will allow a five-year retroactivity from the date the CCMP is in the initial validation[13] both for the start of the mitigation activity and for credit generation.

In case the national or sectoral context in which a certain initiative is developed (different from the international market) considers a different form of considering such retroactivity, that could be submitted for consideration and decision by Cercarbono.

This provision does not apply to initiatives duly registered in other certification programs, migrating into Cercarbono, in which case the initiative could had been in implementation for longer periods, provided it is considered among the cases and is compliant with that indicated in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

The start of operation is understood as the moment the program or project activity starts generating climate change mitigation results due to the implementation of its actions, processes, or facilities in a certain place, at normal operation[14].

7.3 Methodology description

A CCMP must select one methodology (if it is a grouped project or includes activities not covered by a single methodology, but complementary to its activity, it may select more than one) to establish its baseline, to quantify its mitigation results, and to develop a monitoring program, which shall be applicable to the type of CCMP it corresponds to and to the regulation governing it.

The protocol allows the use of methodologies and their components, as well as complementary methods, modules, or tools (always implementing their latest version) developed in the framework of *ISO 14064-2:2019*. Methodologies include those:

- Approved by the Meth Panel of the United Nations Framework Convention on Climate Change (UNFCCC) for the CDM or its substituting mechanism.
- Recognized in national contexts according to the type of CCMP, which are aligned with their current legal framework and if their use is free or authorized by the authors. For acceptance, a Cercarbono team shall assess the soundness of the methodology and its alignment with the principles and procedures of its certification programme.
- Developed by recognized alliances or sectoral organizations, for public and free use, relevant to the sectors or CCMPs using them. As in the previous case, alignment with principles and procedures of Cercarbono's carbon program shall be assessed.

[13] Corresponds to the time the CCMP finalizes the public comments stage, or the real validation process start date, whichever is later in time.

[14] This is, once pre-operation test period and commissioning has finished for activities involving industrial processes and facilities, or GHG-removal / avoidance or emissions reduction project activities start date for other project types, including land use ones.

- Developed by stakeholders[15] (CCMP's developers or holders, or independent companies) under third-party review and public consultation processes supported by Cercarbono (see ***Section 7.12.2***).
- Generated by Cercarbono, publicly consulted, and reviewed by a third party (see ***Section 7.12.2***).

Cercarbono website lists the regulations, procedures, tools, and methodologies accepted under this protocol. Where CDM-approved methodologies are used, the use or non-use of complementary modules or tools must be justified.

Any methodology, method, module, or tool that is not on the list but meets the above characteristics may be submitted to the Cercarbono certification programme for consideration for approval by sending a request to info@cercarbono.com.

Methodologies or tools from the CDM can be used without permission but must be properly referenced in the documents as per UNFCCC's rules (name, version, year, etc.), and the current version shall be implemented in accordance with version transition between versions of the CDM.

Methodologies or tools from standards or certification programs other than the CDM can only be used if its use has been designated as free and cost-free for any person or organization in an explicit, public way, including Cercarbono.

Cercarbono's own methodologies or tools, should also be duly referenced in CCMP's documentation.

CCMPs must establish and justify the applicability conditions of the selected methodology or methodological tools used for:

- Establishing eligibility, in the case of a CCMP in the land use sector.
- Determining baseline and project scenarios.
- Estimating GHG emissions or removals in the baseline scenario.
- Quantifying net GHG emissions and removals or net GHG emission reductions in the project scenario and leakage, if applicable.
- Identifying risks of non-permanence, where appropriate.
- CCMP monitoring.

Following, details are provided related to fundamental components that shall be considered for CCMP development in the framework of this protocol.

7.3.1 Additionality

CCMP activities must demonstrate additionality as a condition for certification under the Cercarbono programme. The criteria and procedures for demonstrating additionality are

[15] For this purpose, the guidelines in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation, should be followed.

established in the ***Cercarbono's Tool to Demonstrate Additionality of Climate Change Mitigation Initiatives***, available at www.cercarbono.com, section: Documentation.

In particular, it is established, legal additionality requirements as described by the program or valid in the specific context certified carbon credits' use is projected shall be complied with, independent from the compliance status or enforcement level for application of such requirements in the CCMP's regulatory and legal environment, and will prevail over that established regarding this subject in other tools, manuals or methodologies related to CCMP implementation under Cercarbono standard[16].

The demonstration of additionality is assessed by the VVBs and reviewed by Cercarbono during validations performed for initial certification events, as well as in revalidations for crediting period renewal or due to changes in CCMP implementation requiring an additional validation, as detailed in ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

Methodologies used by CCMPs shall be aligned with the additionality criteria established herein.

7.3.2 Eligibility

For land use CCMPs, eligibility requirements are defined according to the selected methodology that has been accepted or developed by Cercarbono.

This section does not apply for CCMP in sectors other than land use.

7.3.3 Non-permanence

Given that risks of reversal of GHG removal or reduction[17] (avoidance) of GHG emissions may occur in the land use sector, the CCMP shall use the ***Cercarbono Guidelines for the Management of Permanence and Reversal Risk in Climate Change Mitigation Initiatives in the Land-Use Sector***, available at www.cercarbono.com, section: Documentation.

This section applies for CCMP in land use sectors, as well as for CCMPs related with carbon capture and use (CCU).

The ***Procedures of Cercarbono's Certification Programme*** document details the management of the programme's buffer and the mechanisms for review, control, monitoring, and response to possible reversals that may occur in this type of projects.

7.3.4 Establishment of the baseline scenario

The CCMP must determine the baseline scenario according to the selected methodology, considering all plausible alternatives, including the implementation of the proposed CCMP

[16] This implies any applicable regulation or obligation shall be complied with by the CCMP, even when in the context of such regulation or obligation, compliance with it is not the rule or the competent authority lacks required mechanisms or resources to enforce such compliance.

[17] Non-permanence does not apply to land use CCMPs where their programme or project activity is focused on the reduction (destruction) of GHG emissions.

without the generation of carbon credits as one of the possible scenarios. If the CCMP is equal to the baseline scenario, then the CCMP is not valid as GHG removals or GHG emissions reduction in such case are deemed as not additional.

The CCMP must apply criteria and procedures to identify and justify the baseline scenario, considering the following:

- Description of the CCMP, including all identified GHG emission sources and carbon pools.
- Types, activities, and technologies of existing and alternative programmes or projects that provide equivalent products or services' type and level of activity for the CCMP.
- Data availability, reliability, and limitations.
- Other relevant information on present or future conditions, such as regulations or laws governing it, technical, economic, socio-cultural, environmental, geographic, site-specific, and temporal assumptions, or projections.

The CCMP shall demonstrate functional equivalence in the type and level of activity of the products or services provided in the baseline and project scenarios and should explain, as appropriate, any significant differences between them.

In case other approaches are used for baseline setting, such as performance- or benchmark-based thresholds not linked to traditional methods for baseline scenario assessment, CCMPs and methodologies applying them must demonstrate, by means of an independent expert third-party evaluation, that they are conservative and comparable with that arising from such traditional assessment methods.

The justification of the baseline scenario shall consider its future behavior (GHG emission sources and carbon pools) to comply with the principle of conservatism.

The above also applies where changing conditions not foreseen in the baseline escenario materially affect it, which may require a dedicated baseline reassessment and/or special conditions following the methodological provisions to adequately consider it and account for quantification differences arising from that situation.

The CCMP must select and justify assumptions, values and procedures ensuring that baseline scenario GHG removals are not underestimated, and/or baseline scenario GHG emissions are not overestimated, thus contributing to avoid the potential overestimation of net GHG removals and/or GHG reductions resulting from its implementation.

7.3.4.1 Increased ambition (below business-as-usual) baseline scenario

In line with global efforts toward a higher ambition GHG mitigation scenario, Cercarbono will proactively and systematically assess each new methodology / updated methodology

version to ensure a below business as usual baseline scenario, by providing mandatory downward adjustments to the absolute value of GHG baseline emissions and/or removals.[18]

In the case of active Cercarbono-approved methodologies pending to be updated, all CCMPs applying them must perform such downward adjustment in the following manner:

- Total uncertainty, in baseline GHG emissions and/or removals shall be estimated and reported as a percentage magnitude, using sound, verifiable, criteria and methods, and based on reliable data and information. Depending on the type of CCMP and associated activity or activities, this may entail making a case for a combined total uncertainty determination.
- The absolute value of baseline GHG removals and/or emissions in a business-as-usual scenario (i.e., without making any adjustments), shall be calculated.
- A downward adjustment thereto shall be applied, of at least the same percentage as the total estimated uncertainty.

Cercarbono may establish different criteria in specific new / updated methodologies to make GHG baseline emissions estimates aligned with such increased ambition, according to particular conditions and nature of the involved processes, practices, and CCMP context, which shall be duly justified in such documents.

7.3.5 Establishment of the project scenario

The CCMP shall provide a description of its activity and the means used to achieve GHG removals or GHG emission reductions consistent with the selected methodology.

A CCMP developed in the land use sector shall include:

- A description of forestry activities (where applicable) including forest planning, species type and justification for use, production of plant material, establishment and maintenance of plantations and harvesting.
- A description of agricultural activities (as applicable) including types of woody species implemented and justification for their use, establishment and maintenance of crops and harvesting.
- A description of livestock activities (as applicable) including types of woody/herbal species implemented and justification for their use, livestock production units establishment and maintenance.
- A description of activities in wetlands (as applicable) including types of woody/bush species implemented and justification for their use, plant material production, wetlands establishment and maintenance.

[18] This ensures that when determining mitigation outcomes, the adjustment is made in the right direction, i.e. baseline GHG removals shall be higher and GHG emissions lower, than in the business-as-usual scenario.

- Information (as applicable) on any conservation, management, or planting activities to be undertaken in the CCMP area, including a description of how various organisations, communities and other entities are involved.
- Information (where applicable) on innovative processes or technologies to be implemented in the CCMP area, including a description of how they generate GHG removals other than from carbon pools or GHG emission reductions from the implementation of modern technologies.

For CCMPs other than in the land use sector, the following must be included:

- A description of the main manufacturing or production technologies, systems and equipment involved, including information on the age and average lifetime of the equipment according to manufacturer's specifications and industry standards, as well as existing and expected capacities, load factors and efficiencies. At each crediting period renewal instance, it shall be demonstrated that all main equipment relevant to the project activity generating GHG removals or GHG emissions reduction have remaining useful life greater than the crediting period the CCMP is trying to obtain, according to applicable methodology and tools. In case it is not demonstrated, then default useful life according to such methodologies or tools shall be used as the end date for renewed crediting period, given the case.
- The types and levels of services (typically in terms of mass or energy flows) supplied by the systems and equipment being modified or installed and their relationship, if any, with other manufacturing or production equipment and systems outside the CCMP limits. It should be described how this would have been done in the baseline scenario.
- If applicable, a list of the facilities, systems, and equipment in operation under the existing scenario prior to implementation of the CCMP.

The CCMP must describe the selection or establishment of criteria, procedures, or methodologies for quantifying GHG emissions and removals or GHG emission reductions during the implementation and operation of the CCMP.

The CCMP must select and justify assumptions, values and procedures ensuring that project scenario GHG removals are not overestimated and/or project scenario GHG emissions are not underestimated, thus contributing to avoiding the potential overestimation of net GHG removals and/or GHG reductions resulting from its implementation.

It should also detail the criteria and procedures for quantifying them and demonstrate that they are additional to what would occur compared to the established baseline scenario.

The possible baseline and project scenarios shall cover the same time period.

7.3.6 Identification of GHG emission and leakage sources

The following are the GHG emission sources (***Table 2***) that can be considered in a CCMP in the baseline and project scenarios, including leakage, according to their activity type.

Table 2. GHG emission sources by CCMP type.

Sector/Activity of the CCMP	Baseline scenario			Project scenario			Leakage		
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
Energy									
Energy efficiency (EE)	Yes	Dp	No	Yes	Dp	Dp	Dp	Dp	No
Fuel or feedstock switch (FS)	Yes	Dp	No	Yes	Dp	Dp	Dp	Dp	No
GHG emission avoidance (GHG-Av)	Yes	No	No	Dp	No	No	No	No	No
Displacement of a more-GHG-intensive output (GHG-Disp - RE, LCE)	Yes	Dp	No	Dp	Dp	No	Dp	No	No
Industry									
Energy efficiency (EE)	Yes	No	No	Yes	No	No	Dp	No	No
Fuel or feedstock switch (FS)	Yes	No	No	Yes	Dp	Dp	Dp	No	No
GHG emission avoidance (GHG-Av)	Yes	Dp	Dp	Dp	Dp	Dp	Dp	No	No
GHG destruction (GHG-Dest)	Yes	Dp	No	Yes	No	No	Dp	No	No
Displacement of a more-GHG-intensive output (GHG-Disp – RE, LCE)	Yes	No	No	Yes	No	No	Dp	No	No
Construction									
Fuel or feedstock switch (FS)	Yes	No	No	Yes	No	No	Dp	No	No
Displacement of a more-GHG-intensive output (GHG-Disp - LCE)	Yes	No	No	Yes	No	No	Dp	No	No
Transport									
Energy efficiency (EE)	Yes	No	No	Yes	No	No	Dp	No	No
Fuel or feedstock switch (FS)	Yes	No	No	Yes	No	No	Dp	No	No
Displacement of a more-GHG-intensive output (GHG-Disp - RE, LCE)	Yes	No	No	Yes	No	No	Dp	No	No
Mining and mineral production									
Fuel or feedstock switch (FS)	Yes	No	No	Yes	No	No	No	No	No
GHG destruction (GHG-Dest)	Yes	No	No	Yes	No	No	No	No	No
Displacement of a more-GHG-intensive output (GHG-Disp - RE)	Yes	Dp	No	Yes	Dp	No	No	No	No
Metal production									
Energy efficiency (EE)	Yes	No	No	Dp	No	No	No	No	No
Fuel or feedstock switch (FS)	Yes	No	No	Dp	No	No	No	No	No
GHG emission avoidance (GHG-Av)	Yes	No	No	Dp	No	No	No	No	No
Displacement of a more-GHG-intensive output (GHG-Disp - RE)	Yes	No	No	Yes	No	No	No	No	No
Fugitive emissions									
GHG emission avoidance (GHG-Av)	Dp	Dp	No	Dp	Dp	No	Dp	No	No
GHG destruction (GHG-Dest)	Yes	Yes	No	Dp	Dp	No	No	No	No
Waste management									
Energy efficiency (EE)	Yes	Yes	No	Yes	Dp	Dp	Dp	No	No
GHG emission avoidance (GHG-Av)	Yes	Yes	No	Yes	Yes	Dp	Dp	No	No
GHG destruction (GHG-Dest)	Yes	Yes	Dp	Yes	Yes	Dp	Dp	Dp	Dp
Displacement of a more-GHG-intensive output (GHG-Disp - RE)	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	No
Land use									
GHG removal (GHG-Rem)	No	Dp	Dp	Dp	Dp	Dp	Dp	Dp	Dp
Fuel or feedstock switch (FS)	Yes	Dp	No	Yes	Dp	No	No	No	No
GHG emission avoidance (GHG-Av)	Yes	Dp	Dp	Yes	Dp	Dp	No	No	No

Sector/Activity of the CCMP	Baseline scenario			Project scenario			Leakage		
	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O	CO_2	CH_4	N_2O
GHG destruction (GHG-Dest)	Yes	Yes	No	Yes	Dp	No	Dp	No	No

Note: Dp: depends on the type of CCMP and the methodology applied; in these cases, it is necessary to justify its inclusion or exclusion.

Emission sources

The type of GHG emission source varies according to the CCMP's own characteristics. These sources are defined and justified in detail in an approved GHG quantification methodology selected for the development of a CCMP.

Table 2 highlights the most common and important GHGs generated in each sector. However, other types of GHGs that are relevant in each sector must be considered in the CCMP and the selected methodology, which prevails over the emission sources presented there.

In following sections, a general description of the GHG emission sources that could be considered in each of the sectors according to the CCMP activity type listed in ***Table 2*** is provided as a guideline.

Leakage sources

Even when ***Table 2*** above, and ***Sections 7.3.6.1*** to ***7.3.6.9*** provide further guidance about the expected leakage sources, specific to each kind of sector/activity as per classification in such table, it is required, for any activity involving baseline equipment/systems/other hardware displacement and/or replacement when implementing a CCMP that:

- Related documentation, inter alia, PDD, validation, monitoring and verification reports, shall describe the extent of such displacement/replacement (total, partial, etc.);
- Planned actions regarding such displaced/replaced equipment/systems/other hardware (inter alia, decommissioning, abandoning, destruction, scrapping, continued operation, re-sale for further installation and operation);
- Thorough description of specific processes, activities, or stages to be undertaken to materialize planned actions and achieve the intended project scenario status (inter alia, decomissioned, abandoned, destroyed, scrapped, operating, sold for reuse) for the displaced/replaced equipment/systems/other hardware, demonstrating such specific processes, activities, or stages are consistent and sufficient to achieve such intended project scenario status for the displaced/replaced equipment/systems/other hardware, including related timelines and milestones.
- According to declared project scenario status for such equipment/systems/other hardware, following provisions apply:

- In case the declared project scenario status conducts to a definitive cease of operation of the subject equipment/systems/other hardware (inter alia, decomissioned, abandoned, destroyed, scrapped), including all auxilliary systems/integrated hardware[19] that could otherwise be re-used for the same purpose or in other applications, then:
  - Election of specific processes, activities, or stages required to achieve the project scenario status, shall consider the less-carbon-intensive-route available, as practical, in performing such specific processes, activities, or stages, including potential mitigation of associated GHG emissions.
  - GHG emissions resulting from the implementation of specific processes, activities, or stages required to achieve the project scenario status shall be assessed and quantified, and deducted from the achieved (verified) mitigation outcomes (i.e., deducted from baseline GHG emissions or added to baseline GHG removals, as applicable), to calculate the net GHG emission reductions/removals for the subject monitoring period under verification.
  - All required evidence shall be presented to the VVB in charge of the subject verification process, which shall describe the current status of the subject equipment/systems/other hardware, and any deviation from the planned timeline or declared objectives thereof shall be justified and communicated to perform required adjustments or design changes to the CCMP, and to leakage assessment, as applicable.
- In case the declared project scenario status conducts to an operative status of the subject equipment/systems/other hardware (inter alia, operating in the same location or outside project limits), including an operative status of any auxilliary systems and integrated hardware recycled from the permanently non-operative equipment/systems/other hardware, re-used for the same purpose or in other applications, even outside project limits, then:
  - Election of specific processes, activities, or stages required to achieve the project scenario status, and modes of operation of the displaced/replaced equipment/systems/hardware shall consider the less-carbon-intensive-route available, as practical, including potential mitigation of associated GHG emissions.
  - GHG emissions resulting from the implementation of specific processes, activities, or stages required to achieve the project scenario status, in addition to those resulting from its continued operation (including the fraction of them that could be assigned to continued operation of auxilliary systems and integrated hardware recycled from the permanently non-operative equipment/systems/other hardware, shall be assessed and quantified, and deducted from the achieved (verified) environmental outcomes (i.e., deducted from baseline GHG emissions or added to baseline GHG removals, as applicable), to calculate the net GHG emission reductions/removals for the subject monitoring period under verification.

[19] Systems or hardware that can be uninstalled from the equipment/systems/other hardware and can be installed or used as a standalone system, or integrated into other equipment/systems/hardware to perform functions similar to those they performed in the decomissioned equipment/system/hardware no longer in operation.

- All required evidence shall be presented to the VVB in charge of the subject verification process, which shall describe the current status of the subject equipment/systems/other hardware, and any deviation from the planned timeline or declared objectives thereof shall be justified and communicated to perform required adjustments or design changes to the CCMP, and to leakage assessment, as applicable.

7.3.6.1 Energy sector

- For EE CCMPs:

In the baseline scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, where applicable, as well as those generated in the production of chilled water or for plant operation, should be considered. In addition, where applicable, CH_4 emissions from uncontrolled burning or decomposition of surplus biomass residues.

In the project scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) must be considered. In CCMPs involving cogeneration, CO_2 emissions from the use of fossil fuels in parts of the process, from on-site power generation (electricity and heat), from the production of chilled water and from their installations must be considered. For CCMPs including biomass, CH_4 emissions from biomass burning for energy generation, CO_2, CH_4 and N_2O emissions due to energy crops for feedstock production and CO_2 emissions from transport or processing of biomass on-site and off-site must be considered.

In some CCMPs of this type, it is expected that no emissions will be generated by leakage; however, consideration must be given to the different activities that generate them, such as CO_2 and CH_4 emissions due to extraction, processing, liquefaction, transport, regasification, and distribution of fossil fuels in natural gas CCMPs. CO_2 emissions associated with the exhaust of recovered heat whose diversion to power units may increase emissions elsewhere, as well as CO_2 and CH_4 emissions due to the diversion of biomass residues for other applications or due to the displacement of upstream activities to the CCMP must also be considered.

- For FS CCMPs:

In the baseline scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration schemes must be considered, where applicable. CH_4 emissions from uncontrolled burning or decomposition of surplus biomass residues, where applicable, must also be considered.

In the project scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal power) must be considered. In CCMPs involving cogeneration, CO_2 emissions due to the use of fossil fuels for process elements, on-site power generation (electricity and heat) and by their installations must be considered. For CCMPs that include biomass, CH_4 emissions from burning biomass for energy generation and CO_2, CH_4 and N_2O emissions due to energy crops for feedstock production, as well as

CO_2 emissions from transport or processing of biomass on-site and off-site must be considered.

Where applicable, the different activities that generate emissions from leakage must be considered.

- For GHG-Av CCMPs:

In the baseline scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or in cogeneration, where applicable, must be considered.

In the project scenario, GHG emissions are expected to be avoided or not generated; however, the different activities that generate GHG emissions must be considered.

In CCMPs of this type, no emissions are normally generated by leakage, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Disp (RE - LCE) CCMPs:

In the baseline scenario, CO_2 emissions due to the use of fossil fuels or due to the generation of electricity or heat (steam or non-steam thermal energy) or in cogeneration must be considered, where applicable. CH_4 emissions from burning or decomposition of organic matter must also be considered, where applicable.

In the project scenario, it is expected that no or displaced GHG emissions will be generated; however, the different activities that generate GHG emissions should be considered.

In this type of CCMP, no significant sources of leakage are expected; although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable. Leakage sources due to induced land use in case of biofuels or biomass use shall also be considered, as applicable.

7.3.6.2 Industry sector

- For EE CCMPs:

In the baseline scenario, CO_2 emissions due to fossil fuel consumption and energy consumption for the preparation of raw materials, alternative fuels and for the operation of equipment must be considered.

In the project scenario, CO_2 emissions due to electricity consumption (grid and self-generated), raw material preparation, alternative fuels and equipment operation are to be considered.

Depending on the type of CCMP, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For FS CCMPs:

In the baseline scenario, CO_2 emissions from the use of fossil fuels, from the consumption of electricity from the national grid or captive source, steam and from the preparation of alternative feedstock and fuels (e.g., drying of materials or fuels with external dryers) must be considered. CO_2 emissions, where applicable, in thermal energy processes and cogeneration plants must also be considered.

In the project scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) must be considered. For cogeneration CCMPs, CO_2 emissions due to the use of fossil fuels in parts of the process, those due to on-site power generation (electricity and heat) and those generated by their installations must be considered. For geothermal CCMPs, fugitive CO_2 and CH_4 emissions from non-condensable gases contained in geothermal steam and CO_2 emissions from the use of fossil fuels must be considered. For hydro CCMPs with established reservoirs, CH_4 emissions from solid or liquid waste disposal must be considered. For solar CCMPs, CO_2 emissions from the use of fossil fuels in ancillary operations and for solar production processes must be considered. For CCMPs that include biomass, CH_4 emissions from biomass burning for energy generation, CO_2, CH_4 and N_2O emissions due to energy crops for feedstock production, CO_2 emissions from transport or processing of biomass on-site and off-site and CH_4 emissions from wastewater in biomass treatment must also be considered.

In some CCMPs of this type it is expected that no emissions by leakage will be generated; however, the different activities that generate them must be considered, such as CO_2 emissions from transport and collection of biomass, from diversion of biomass residues from other use applications, from the change of activities prior to the CCMP, and from fuel extraction, processing, liquefaction, transport, regasification, and distribution of fossil fuels.

- For GHG-Av CCMPs:

In the baseline scenario, CO_2 emissions from fossil fuel use for heat generation and CH_4 emissions from uncontrolled burning or decomposition of biomass residues must be considered.

In the project scenario, where applicable, CO_2 emissions from fossil fuel use, on-site electricity generation and biomass transport, CH_4 emissions from biomass treatment wastewater and CH_4 and N_2O emissions from energy crops for feedstock production must be considered.

CO_2 emissions from leakage due to diversion of biomass residues and change of pre-CCMP activities must also be considered, along with some implementation modalities, from which potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Dest CCMPs:

In the baseline scenario, CO_2 emissions from the use of fossil fuels to generate heat or power as well as fluorinated GHGs (CF_4, C_2F_6, CHF_3, CH_3F, CH_2F_2, C_3F_8, c-C_4F_8 and SF_6) that

are released to the atmosphere after being used in industrial production processes are to be considered. Emissions of CH_4 from the use of biomass are considered.

In the project scenario, only CO_2 emissions from fossil fuel use must be considered, where applicable, as fluorinated GHGs are recovered and destroyed in a catalytic oxidation unit within the destruction process. In some cases, CH_4 is recovered and combusted.

In some CCMPs of this type it is expected that no emissions from leakage will be generated; however, the different activities that generate leakage must be considered.

- For GHG-Disp (RE - LCE) CCMPs:

In the baseline scenario, CO_2 emissions due to the use of fossil fuels for electricity or heat generation (steam or non-steam thermal energy) or from cogeneration, where applicable, should be considered.

In the project scenario, CO_2 emissions due to the use of fossil fuels must be considered.

Significant sources of leakage are not expected in this type of CCMP; although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable. For CCMPs that include biomass, CO_2 emissions due to transport must be considered.

7.3.6.3 Construction sector

- For FS CCMPs:

In the baseline scenario, CO_2 emissions from fossil fuel or feedstock use within the traditional building or wall material (brick and cement) construction processes are to be considered.

In the project scenario, GHG emissions from the use of building materials and wall material (gypsum concrete) are expected to be reduced.

For some CCMPs of this type, it is expected that no emissions from leakage will be generated; however, the different activities that generate leakage should be considered.

- For GHG-Disp (LCE) CCMPs:

In the baseline scenario, CO_2 emissions from the use of fossil fuels within the traditional construction processes or material (brick and cement) walls should be considered.

In the project scenario, GHG emissions from the use of building materials and wall material (gypsum concrete) are expected to be displaced.

In some CCMPs of this type, it is expected that no emissions from leakage will be generated; however, the different activities that generate leakage should be considered.

7.3.6.4 Transport sector

- For EE CCMPs:

In the baseline scenario, CO_2 emissions by mobile sources from different modes of road (bus, minibus tour, train, motorbike, taxi), air (light aircraft, aeroplane), and sea (boat, ship, among others) transport must be considered.

In the project scenario, CO_2 emissions from fuel use and the installation of more efficient equipment that generates less energy consumption must be considered.

In this type of CCMP, no significant sources of leakage are expected; although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For FS CCMPs:

In the baseline scenario, CO_2 emissions by mobile sources from different modes of road (bus, minibus tourism, train, motorbike, taxi), air (light aircraft, aeroplane), and sea (boat, ship, among others) transport must be considered.

In the project scenario, CO_2 emissions from the use of fuels or low-emission raw materials or electricity, on land, air, or sea transit journeys (feeder and trunk routes, as appropriate), must be considered.

Significant sources of leakage are not expected in this type of CCMP; however, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Disp (RE - LCE) CCMPs:

In the baseline scenario, CO_2 emissions by mobile sources from different modes of road, (bus, minibus tourism, train, motorbike, taxi), air (light aircraft, aeroplane) and sea (boat, ship, among others) transport must be considered.

In the project scenario, CO_2 emissions due to fuel use are not to be considered or are reduced, as the transport modes are changed to bicycles or electric tricycles partially displacing the existing transport system operating under mixed traffic conditions. However, CO_2 emissions from the use of low-emission fuels must be considered for land, air, and maritime transit journeys (feeder and trunk routes, as appropriate).

Significant sources of leakage are not expected in this type of CCMP; although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

7.3.6.5 Mining and mineral production sector

- For FS CCMPs:

In the baseline scenario, CO_2 emissions from the use of fossil fuels to generate energy must be considered as well as carbonates that are released to the atmosphere after being used in mineral production processes.

In the project scenario, only CO_2 emissions from fossil fuel use, where applicable, or from carbonate-containing feedstocks must be considered.

In this type of CCMP it is expected that no emissions from leakage will be generated.

– For GHG-Dest CCMPs:

In the baseline scenario, CO_2 or CH_4 emissions generated and released to the atmosphere by operating mines and geological structures must be considered.

In the project scenario, CO_2 emissions can be generated and used for power or heat generation.

In this type of CCMP it is expected that no leakage emissions are generated, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Disp (ER) CCMPs:

In the baseline scenario, CO_2 or CH_4 emissions are generated by burning or decomposition of biomass in materials production.

In the project scenario, CO_2 or CH_4 emissions are generated in the production of materials by lower carbon fuels and biomass burning, respectively.

No significant sources of leakage are expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

7.3.6.6 Metal production sector

- For EE CCMPs:

In the baseline scenario, CO_2 emissions are produced by fossil fuel and material use in metal production.

In the project scenario, GHG emissions are reduced, and more efficient equipment is used.

No significant sources of leakage are expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For FS CCMPs:

In the baseline scenario, CO_2 emissions are produced by use of fossil fuels within mineral or steel and iron production.

In the project scenario, GHG emissions are reduced by reduced use of polluting material and by switching from fossil fuels to charcoal (or other less carbon-intensive fuel options) as a renewable energy source or by switching to cleaner feedstocks.

No significant sources of leakage are expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Av CCMPs:

In the baseline scenario, CO_2, PFCs and SF_6 emissions occur during metal production or smelting.

In the project scenario, CO_2, PFCs and SF_6 emissions are avoided due to the use of gas, lower energy consumption and improved metal production / smelting processes.

No significant sources of leakage are expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Disp (RE) CCMPs:

In the baseline scenario, CO_2 emissions are produced from the use of fossil fuels in metal production (especially iron and steel).

In the project scenario, CO_2 emissions are reduced in metal production by implementing processes or activities that displace the use of fossil fuels.

No significant sources of leakage are expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

7.3.6.7 Fugitive emissions sector

- For GHG-Av CCMPs:

In the baseline scenario, CO_2 and CH_4.emissions generated in the oil and gas and fuel production and processing, storage, transport, and distribution systems can be considered. GHG emission sources in CCMP aiming to fugitive emissions reduction to be considered include GHG emissions from leaks in systems, equipment, and components.

In the project scenario, CO_2 and CH_4 emissions can be considered.

Significant sources of leakage are not expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Dest CCMPs:

In the baseline scenario, CO_2 and CH_4 emissions from production processes are to be considered. In the project scenario, CO_2 emissions are expected to be reduced (destroyed).

In this type of CCMP, no emissions from leakage are expected to be generated, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

7.3.6.8 Waste management sector

- For EE CCMPs:

In the baseline scenario, CO_2 emissions from heat generation and waste decomposition on site must be considered as well as CH_4 emissions from anaerobic lagoons, sludge pits and electricity generation.

In the project scenario, CO_2 emissions from fossil fuel use and electricity use must be considered, as well as CO_2, CH_4 and N_2O emissions from waste treatment processes and CH_4 emissions from wastewater treatment.

CH_4 emissions associated with composting and co-composting, anaerobic digestion, and the use of Refuse Derived Fuel (RDF) and stabilised biomass (BE) must be considered as leakage.

- For GHG-Av CCMPs:

In the baseline scenario, CO_2 emissions due to energy generation (electricity or thermal) and due to sludge transport, as well as CH_4 emissions due to waste decomposition in the landfill and due to wastewater and sludge treatment must be considered.

In the project scenario, CO_2 emissions from electricity consumption, fossil fuel use, and transport, as well as CH_4 emissions from wastewater and sludge treatment and waste decomposition in landfills and, where applicable, CH_4 and N_2O emissions from landfill aeration must be considered.

Significant sources of leakage are not expected in this type of CCMP, although in some implementation modalities, potential leakage sources could arise, which shall be properly assessed and considered in net GHG reductions calculations, as applicable.

- For GHG-Dest CCMPs:

In the baseline scenario, CO_2 emissions from electricity consumption or generation and from heat generation, CH_4 emissions from waste decomposition and from manure treatment processes, as well as CO_2 and CH_4 emissions from natural gas use and CH_4 and N_2O emissions from waste treatment processes must be considered.

In the project scenario, CO_2 emissions from the use of fossil fuels to generate electricity or heat or used for transport and CO_2 emissions due to electricity consumption, as well as CH_4 emissions from flaring, CO_2 and CH_4 emissions from landfill gas distribution and N_2O and

CH_4 emissions from waste and manure treatment processes, sludge composting, and manure storage tanks must be considered.

No significant sources of leakage are expected in this type of CCMP; however, the different activities that generate CH_4 emissions from the application of treated manure to the soil, as well as those related to anaerobic digestion in a digester, in addition to CO_2, CH_4 and N_2O emissions from the application of treated waste to the soil and from the transport of treated sludge or effluent, must be considered.

- For GHG-Disp (RE) CCMPs:

In the baseline scenario, CO_2 emissions from heat generation and combustion, and CH_4 and N_2O emissions from waste decomposition on site must be considered.

In the project scenario, CO_2 emissions from fossil fuel use and electricity use must be considered, as well as CO_2, CH_4 and N_2O emissions generated in waste treatment processes and CH_4 emissions from wastewater treatment. Although GHG emissions are expected to be reduced by the implementation of alternative processes in waste treatment, such as composting, gasification, anaerobic digestion with biogas collection and flaring or its use, mechanical/thermal treatment process to produce RDF and BE and its utilisation and incineration of fresh waste for energy generation.

CH_4 emissions associated with composting and co-composting, anaerobic digestion and the use of RDF and SB must be considered as leakage.

7.3.6.9 Land use sector

- For GHG-Rem CCMP:

In the baseline scenario, CH_4 and N_2O emissions associated with site preparation and fertilizer use should be considered where applicable.

In the project scenario, burning for site preparation is not accepted (only in the woody crops segment if allowed by law); in this type of emissions, CO_2 is not considered as a source, but is accounted for as a change in carbon stock. GHG emissions from fertiliser use should be included unless they are not significant.

Significant emissions from leakage are not expected in this type of CCMP; however, emissions that generate CH_4 emissions from displacement of agricultural or livestock activities must be considered.

- For FS CCMPs:

In the baseline scenario, CO_2 emissions from fossil fuel use and CH_4 emissions from disposal of faeces, biomass or waste that decompose anaerobically and are emitted to the atmosphere must be considered.

In the project scenario, CO_2 and CH_4 emissions are reduced by changing feedstock, fuel, and due to the use of biogas.

No significant sources of leakage are expected in this type of CCMP.

- For GHG-Av CCMPs:

In the baseline scenario, CO_2 emissions from fuel use and, where applicable, N_2O emissions from fertiliser use and CH_4 due to anaerobic decomposition of organic matter must be considered.

In the project scenario, CO_2 and CH_4 emissions are reduced by changing practices or management, fuel switch and less fertiliser usage or due to the use of nitrogen-fixing bacteria.

Significant sources of leakage are not expected in this type of CCMPs; however, consideration must be given to the different activities that may generate leakage or CCMPs that include leakage, as in the case of REDD+.

- For GHG-Dest CCMPs:

In the baseline scenario, CO_2 emissions from fossil fuel use and CH_4 emissions from disposal of faeces, biomass or waste that decompose anaerobically and are emitted to the atmosphere must be considered.

In the project scenario, CO_2 emissions from fossil fuel use and CH_4 emissions from waste or faeces management systems that are captured, destroyed, or used as an energy source must be considered.

Significant sources of leakage are not expected in this type of CCMP; however, the different activities that may generate them must be considered.

7.3.7 Identification of carbon pools

For CCMP in the land use sector, the carbon pools to be considered in the baseline and project scenarios are above-ground biomass, below-ground biomass, dead wood, litter, and soil organic carbon. When estimating carbon stocks in the carbon pools, above-ground biomass and below-ground biomass shall be considered as a minimum. The CCMP may or may not consider carbon in dead wood, litter, and soil organic carbon. The inclusion of carbon pools varies according to the specific characteristics of the CCMP and is defined and justified in detail in approved and selected methodologies including the estimation or calculation of carbon stock changes.

For CCMPs other than the land use sector, this section does not apply.

7.3.8 Selection of emission sources and carbon pools for monitoring or estimating GHG emissions and removals

The CCMP shall select and apply the criteria and procedures for estimating or monitoring the selected GHG emission sources and carbon pools, using appropriate and reliable data, providing justification for not selecting any GHG emission source or carbon pool identified

as optional for monitoring, according to the criteria of the selected methodology. Monitoring methods and procedures should be consistent with the baseline and monitoring methodology(ies) used in the preparation of the PDD.

The CCMP may use direct measurement or estimation methods to identify and select GHG emission sources and carbon pools for subsequent quantification. In any case, the criteria[20] used in their selection must be consistent with the principles set out in this protocol.

The exclusion of GHG emission sources in the quantification can be justified if comparisons between baseline and project scenarios show no changes. Meanwhile, carbon pools may be excluded in the quantification if it is demonstrated that the carbon pool is not a net source of GHG emissions or removals; therefore, the CCMP must identify the relevant GHG emission sources and pools according which it considers controlling or which are related to or affected by the CCMP. That is, it is solely responsible for changes in GHG emissions and removals from the sources (including leakage) and carbon pools that the CCMP affects.

7.3.9 Quantification of GHG emissions and removals in the baseline scenario

The CCMP shall establish the criteria, procedures, and methodologies for quantifying GHG emissions and removals in the baseline scenario, quantifying GHG emission sources and carbon pools (if applicable) separately, converting the amount of each type of GHG to tCO_2e.

The baseline scenario is estimated for the total duration of the CCMP and should be based on the principles outlined in ***Section 4.1***.

7.3.10 Quantification of GHG emissions and removals and GHG emission reductions in the project scenario

The CCMP shall set out the criteria, procedures, and methodologies for quantifying GHG emissions and removals as well as GHG emission reductions or leakage that may occur in the project scenario, quantifying GHG emission sources, carbon pools and leakage (if applicable) separately, converting the amount of each type of GHG to tCO_2e.

In Cercarbono's normative documents, the “leakage” term is referred to quantifiable GHG emissions, generated outside project limits which could be undoubtedly attributable to involved program or project activities. All CCMP of any type shall quantify leakage, or demonstrate there is no leakage, based on what is stated in Cercarbono's normative documents and as required in methodologies used[21].

[20] Criteria may consider a balance between practicality and cost-effectiveness with CCMP principles. It may consider the choice of good practice on how to respond to some of the decision criteria (e.g., when considering whether a GHG emission source or carbon pool is related by flows to or from the baseline or project scenario). Ultimately, the decision to estimate, measure or monitor a GHG emission source or carbon pool may be based on the costs of the monitoring effort versus the significance of the impact on the CCMP's GHG removals or GHG emission reductions.

[21] It is important to note leakage generated outside of the country's territory where a CCMP is implemented is not required to be quantified.

The project scenario is estimated for the entire duration of the CCMP and should be based on the principles outlined in ***Section 4.1***.

In the baseline and project scenarios, if applicable, depending on the selected methodology, the CCMP must select or develop GHG emission or removal factors that:

- Are derived from a recognised source.
- Are appropriate for GHG emission sources (including leakage, if applicable), and carbon pools (if applicable).
- Are appropriate at the time of quantification.
- Generate accurate and reproducible uncertainty quantification results.
- Consistent with the intended use of the PDD.

7.3.11 Estimation of net GHG emissions and removals and projected net GHG emission reductions

In CCMPs considering GHG removal activity, net GHG removals are quantified as the difference between the net removals (discounting emissions) in the project scenario and the net removals (also discounting emissions) in the baseline scenario.

In CCMPs considering GHG emission reduction activity, net GHG emission reductions are quantified as the difference between the net reductions (discounting emissions) in the baseline scenario and the net reductions (also discounting emissions) in the project scenario.

In both cases, these calculations must be performed annually for each GHG emission source, (including leakage if applicable) and carbon pool (if applicable) in the baseline and project scenarios, converting the amount of each type of GHG to tCO_2e.

Leakage shall be quantified and monitored at each verification event, be expressed in terms of tCO_2e, and shall be subtracted from CCMP's GHG emission reduction or GHG removal to determine its net GHG reductions or removals.

When a CCMP requires leakage quantification, related methodology, calculations, estimations, and considerations, as well as activities for leakage mitigation (as applicable), shall be recorded in appropriate sections at the PDD and the monitoring report.

The CCMP shall select and apply criteria and procedures from ***Cercarbono Guidelines for the Management of Permanence and Reversal Risk in Climate Change Mitigation Initiatives in the Land-Use Sector***, available at www.cercarbono.com, section: Documentation, developed to support an eventual reversal of the CCMP's GHG removal or GHG emission reduction (avoidance) activity according to the selected methodology.

7.3.12 Methodological revisions and deviations

CCMP may request a deviation from an approved methodology if:

- It does not adversely affect the conservative principle of the methodology.

- It does not go against the principles established in this protocol.
- It does not the oppose the methodology spirit.
- It does not represent a violation of the regulatory framework applicable to the CCMP activity.

See ***Section 6.3***.

7.4 CCMP monitoring

Once the CCMP has identified GHG emission sources and carbon pools, it must identify the data or parameters related to these sources and pools that are estimated or quantified based on actual measurements to calculate the baseline and project scenarios. Data collected at the formulation stage help to quantify the GHG emissions and removals of the baseline scenario and data collected after CCMP implementation help to quantify CCMP GHG emissions (including leakage, if applicable) and removals and GHG emission reductions.

In that regard, the CCMP must establish a monitoring plan that includes procedures for measuring or estimating, recording, compiling, and analysing important data and information for quantifying GHG emission sources and carbon pools to determine their GHG emissions and removals and GHG emission reductions relevant to the project scenario, including, in CCMPs related to land use, a GHG information system using appropriate technologies. The monitoring plan shall include the following, as appropriate:

- Purpose of monitoring.
- List of parameters measured and monitored.
- Types of data and information to be reported, including units and time scale of measurement.
- Data source.
- Monitoring methodologies (estimation, modelling, or measurement), calculation approaches and uncertainty. In case of measurement, establish or include calibration and maintenance protocols for measurement equipment, as appropriate.
- Frequency of monitoring of different variables and components, considering the needs of stakeholders.
- Definition of roles and responsibilities, including procedures for authorising, approving and documenting changes to recorded data.
- Controls including internal assessment of input, transformation and output data, and procedures for corrective actions.
- GHG information management systems, including location and holding of stored data and data management including a procedure for transferring data between different forms of systems or documentation.
- Monitoring report structure.

The nature of the information available for the CCMP determines whether GHG emissions and removals and GHG emission reductions are estimated or quantified based on actual

measurements. Normally, prior to the implementation of a CCMP, GHG emissions and removals and GHG emission reductions are estimated (ex-ante), whereas, during CCMP implementation, they can be monitored and measured directly providing actual data for quantification (ex-post). Monitoring and measurement can therefore be carried out with 100 % data measurement or based on a sampling scheme depending on the nature of the data sources.

Where measurement and monitoring equipment is used, the CCMP holder must ensure and have the evidence to demonstrate that it is used and maintained calibrated or verified, as appropriate, in line with its manufacturer's or user's manual. GHG monitoring criteria and procedures are applied according to the monitoring plan.

When the CCMP, after monitoring the CCMP activity (prior to or after a verification event), identifies significant changes in the results of its activity, a reassessment of the project scenario shall be performed.

Cercarbono has ***Monitoring Report*** templates, designed according to the sector and mitigation activity on which the CCMP focuses, available at www.cercarbono.com, section: Documentation, which can serve as a basis for considering the most essential elements of this stage.

7.5 Grouped projects

Grouped projects are those implemented under one or more methodologies (but not using parts or calculation or monitoring methods from several methodologies for the same program or project activity) from the same sector, focused on GHG removals or GHG emission reductions in a specific area or facility and period, structured to allow for the addition of one or more instances of the mitigation activity or its scaling up after the initial validation. The grouping and eligibility criteria must be explicitly defined in advance in the PDD to allow for the addition of new participants and implementation instances not known at the time of project implementation. The implementation of a grouped project does not require a separate registration, validation, and verification process for each new implementation instance, facilitating the future expansion of the project with reduced transaction costs. A grouped project's duration shall not exceed that determined for crediting periods under this protocol for the type of CCMPs included in the grouped project, including renewals.

Some examples of clustering criteria are presented below:

- Implementation by the same participants of the initial project (e.g., expansion of the same enterprise).
- Admission of new partners to an existing associative institution (e.g., a cooperative, which is the holder or developer of the project).
- Expansion of an incentive or support programme with rules defined from the outset (e.g., an international cooperation project).

The rules for the inclusion of new participants or implementation instances (eligibility criteria) must be established from the initial design of the project and cannot be modified afterwards. Specifically, the following criteria must be considered:

- The geographical scope[22] in which implementation instances can be added shall be defined from the project's validation stage and cannot be modified afterwards. Under no circumstances may activities implemented in more than one country be grouped together.
- The number of implementation instances that can be added to a grouped project is unlimited.
- Instances that adopt technologies or processes different from those established during the project design cannot be included.
- The inclusion of new instances of implementation does not extend the lifetime of the project, nor does it affect the crediting period duration.
- The inclusion of new implementation instances shall be validated during project verifications.
- The start of activities for each implementation instance can be retroactive up to the date of the previous project verification, starting from the second verification.
- Implementation instances must meet all eligibility requirements and other requirements established in this protocol and in the selected methodology for the initial implementation of the project.
- Verifications of all PAs shall be performed in a single verification event.

Inclusion of new instances shall be performed through validation during project verifications.

The VVB in charge of the verification shall assess the compliance of each of the implementation instances with the selected methodology and the relevant rules established in the Cercarbono's certification programme.

An additionality analysis shall be carried out on the implementation instances to be added to the project, considering potential baseline scenarios corresponding to the project status at the time those instances are added.

The baseline and project scenarios need to be updated to reflect the effect of new implementation instances additions on the project; it is not necessary to recalculate for the implementation instances in operation prior to such addition.

7.5.1 Special considerations for CCMPs in the land use sector

In the case of REDD+ projects, if the country where the project would be implemented has defined sub-national reference levels, project implementation can only occur at one of these sub-national levels.

[22] Geographical CCMP information shall be updated and uploaded into EcoRegistry platform as per in applicable provisions in the ***Guidelines for Mapping Presentation and Analysis***, justifying performed changes in the "comments" column in the subject form, in addition to include all new geographical information-related items.

In the case of REDD+ projects, all instances of implementation shall include the same activities and pools as initially envisaged in the project. See the Cercarbono REDD+ methodology for more details.

In the case of REDD+ projects developed in community-owned areas, including those located in indigenous territories, purely remote audits are not accepted, because of the need to assess in the field what has been specified in the PDD, especially regarding areas' ownership, legal aspects related to community representation and compliance with safeguards; however, hybrid audits could be justified.

Instances of implementation with species or species' combinations not explicitly defined during project validation may be added.

For grouped CCMPs in the land use sector, if exclusion of areas is considered, this shall occur after two years from the last verification and in this case, the CCMP shall deduct from the total mitigation achieved at the next verification, an amount equal to the credits issued corresponding to the excluded areas, as a guarantee of permanence of these credits. For more details see section ***Carbon buffer management*** of ***Procedures of Cercarbono's Certification Programme***, available at: www.cercarbono.com, section: Documentation.

7.6 Programs of activities (PoA)

To facilitate and streamline the registration and validation process for project activities that can be implemented by multiple actors in a coordinated but independent manner, Cercarbono allows a **Coordinating Entity** (CEn) to manage them independently through a **Program of Activities for Climate Change Mitigation** (**PoA**) in sectors other than land use.

PoAs allow for the participation of an unlimited number of new **Climate Change Mitigation Programme Activities** (**PAs**) throughout their crediting period, subject to the eligibility requirements set by the selected methodology(ies).

For this purpose, the PoA CEn shall submit a Project Description Document for the PoA (PDD-PoA), defining the general parameters of the PoA and the rules for the addition of new PAs, considering that:

- The geographic scope in which PAs can be aggregated must be defined at the validation stage of the PoA and cannot be modified afterwards. In no case may the PAs be added in more than one country.
- The start of activities of each PA after those registered at the beginning of the PoA can be retroactive to the date of the previous verification of the PoA, starting from the second verification.
- PAs may use any methodology approved by Cercarbono except those belonging to the land use sector.
- PAs must meet all eligibility and other requirements set out in this protocol and in the methodology selected for the initial implementation of the project.
- The inclusion of new PAs must be validated during project verifications.

- Each PA establishes its own crediting period and lifespan, according to the rules established in this protocol for CCMPs.
- Verifications of all PAs must be performed in a single verification event.
- PoA duration may be longer than the crediting period a CCMP or grouped project may be granted, although each PA duration is still subject to established rules as per Cercarbono's regulatory framework. In such cases, the form in which the operation of the program of activities will be ensured.

The VVB in charge of the verification must assess the compliance of each of the PAs with the selected methodology and the relevant rules set out in the Cercarbono's certification programme.

An additionality analysis must be performed for PAs that are intended to be added to the PoA, considering the potential baseline scenarios that correspond to the PoA status at the time of addition of the PAs.

To supplement information provided in this section, it is recommended to use the most recent version of the ***CDM validation and verification standard for programmes of activities***.

7.7 CCMP useful life (duration)

The CCMP duration or useful life is established by the holder or developer, who shall provide support for choosing such timespan, which includes, but is not limited to, action or management plans (of processes, machinery, equipment, human resources, financial resources, among others) and the useful life cycle of areas, machinery, and equipment, among others. During the validation and verification processes, the VVB shall assess and check the legitimacy of the CCMP's lifetime and remaining lifetime thereof, which is reviewed by Cercarbono during the certification stage.

To demonstrate climate change mitigation results, CCMPs can set a lifetime of 10 to a maximum of 100 years, except in the case of CCMPs in the land use sector, where the minimum lifetime must be 30 years, or CCMPs implemented under an initiative or programme with a limited, less than 10 years lifespan. The established CCMP lifetime cannot be renewed. The start of the implementation of the CCMP activity determines the start date of the CCMP lifetime and thus of the crediting period of the CCMP.

New land use sector CCMPs[23] whose duration is less than 40 years must committ, by means of a legally binding written attestation in the terms dictated by Cercarbono for the specific case, to monitor permanence and compensate for reversals in the applicable project area(s) for a period not less than 40 years from the start date of the CCMP.

[23] Considering as such those with a start date after December 31, 2026.

Monitoring and reversals thereof shall be reported to Cercarbono with a minimum 2-year frequency.

For projects with a declared useful life of 40 years or more, contractual terms between Cercarbono and the project holder / developers make compliance with applicable provisions of the regulatory framework (including monitoring and compensation requirements throughout its useful life) mandatory and enforceable.

7.8 Crediting period

The crediting period is the timespan during which a CCMP can request verification of its climate change mitigation contribution for carbon credits.

The holder or developer chooses the start date of the crediting period (day.month.year). For CCMP in the land use sector, the crediting period is 20 years, starting from the time it begins generating GHG removals or GHG emission reductions. For CCMPs in other sectors, the crediting period is 10 years or equal to the duration or lifetime of the CCMP, if this is less than 10 years, starting from the time it begins generating GHG emission reductions.

The crediting period for a specific CCMP may have a different duration when the program, national regulation or market in which it participates so determines.

7.9 Crediting period renewal

After the initial crediting period, if the CCMP has not yet reached the end of its useful life, the crediting period can be renewed by submitting the ***Application for Renewal of Crediting Period*** form available at www.cercarbono.com, section: Documentation. For CCMPs in the land use sector, it can be renewed as many times as desired, for periods of 10 years or for a shorter period, until the end of its lifetime.

For CCMPs in other sectors, it can be renewed only twice, including renewals obtained in the program of origin for CCMPs migrated into Cercarbono (see ***Section 11***), for 10-year periods or for a shorter period provided its useful life is not exceeded.

The renewal of the crediting period must be done through a new validation process, in which it is assessed that the CCMP continues to be additional and continues to meet the updated current requirements of this protocol.

A reassessment of the baseline scenario and mitigation calculations-related assumptions, criteria, and procedures is mandatory as part of such validation, which must be performed by a Cercarbono-approved VVB.

Such baseline reassessment is aimed at evaluating its validity for the renewed-to-be crediting period, and shall consider the applicable provisions in Cercarbono's regulatory framework, applied methodology, and relevant tools and guidelines.

In particular, the baseline reassessment shall include a comparison between CCMP's baseline current, and original (start date or last baseline reassessment[24]), conditions, on top of assessing the effect of changes in baseline conditions existing when the CCMP was validated for the expiring crediting period, as well as the prevalence of barriers assessed at that time.

Depending on the outcome of such reassessment, the baseline should be updated as follows:

When it is determined the original conditions and/or barriers prevail and are of the same nature and magnitude as per original conditions or last reassessment, an updated baseline quantification for the renewed period according to current version of both, the applied methodology, and applicable regulatory framework documents and provisions, shall be produced.

When the original conditions and/or barriers have experienced changes affecting the validity of the baseline scenario, it is required that a new baseline scenario be considered, in compliance with Cercarbono's regulatory framework and the current version of the applied methodology.

The updated baseline scenario shall be incorporated into the CCMP's PDD version intended for crediting period renewal-validation, including required adjustments and/or modifications to any sections thereof, and to other related CCMP's documentation.

In the case of projects migrated from other standards into Cercarbono, with a valid crediting period, end date for such period as determined by the standard of origin is honored and in case there is a possibility for crediting period renewal under Cercarbono, then renewed crediting period duration will be as per in this protocol's provisions.

Compliance with the additionality criterion is reviewed under verification and certification events throughout the CCMP's crediting period. If changes in the implementation of the CCMP that affect this criterion are detected by the CCMP or the VVB, the PDD must be updated, reassessing the baseline and project scenarios to demonstrate the additionality of the CCMP, supported by a new validation event within the established crediting period.

To renew the crediting period, the CCMP must have had, as a minimum, verifications every three years during the previous crediting period.

For CCMPs that have not performed verifications for the last three or more years, they must provide a justification for such non-performance and comply with the provisions in ***Section 9.4.1***, to remain in an Active status.

Renewed crediting period duration for a specific CCMP could be shorter than as provided in this protocol, when the program, national regulation or market in which it interacts so determines.

[24] Whichever is more recent

7.10 Safeguards

To ensure that CCMPs do not produce any net harm in environmental, social, and economic terms, they must comply with the provisions in ***Safeguarding Principles and Procedures of Cercarbono's Certification Programme*** document, available at www.cercarbono.com, section: Documentation.

7.11 Contribution to UN's Sustainable Development Goals

In the framework of the United Nations Sustainable Development Goals (SDGs), the CCMP is required to promote and demonstrate activities aimed at improving the environment and the quality of life of local populations, through the adoption of good practices, including the protection of traditional knowledge and improving the use of natural resources. Compliance with all environmental and social laws in the context in which the CCMP is developed is mandatory. In no case is it acceptable for CCMPs to impose negative impacts on the quality of life of local or surrounding populations.

Therefore, the CCMP must report its contribution to the achievement of the SDGs generated by its activity by completing the ***Cercarbono's Tool to Report Contributions from Climate Change Mitigation Initiatives to the Sustainable Development Goals***, available at www.cercarbono.com, section: Documentation. The application of the tool is reviewed by the VVB at validation or verification events. Actual contributions to the SDGs by the CCMP can only be reported and reviewed in the framework of verification events.

REDD+ activities must also support results regarding the safeguards framework established for the CCMP activity type, such as environmental, social and governance measures or safeguards to avoid negative impacts and promote benefits.

Similarly, in the case of projects involving the distribution or sharing of benefits derived from the implementation of the CCMP with communities, the form and modalities in which such distribution or sharing of benefits takes place, or the use of appropriate tools for this purpose, shall be described, describing in such a case the source and general characteristics of such tools.

CCMPs requiring an environmental impact assessment must do so by following the guidelines set by the competent environmental authority in the country where they are developed. In any case, the CCMP must comply with the environmental legislation applicable in its context. If such guidelines do not exist, one of the following methods may be used:

- Expert judgement.
- Quantitative physical and mathematical models.
- Cumulative impact assessment.
- Interaction matrices and diagrams.
- Rapid Impact Assessment Matrix.
- Battelle environmental assessment system.

CCMPs that report their expected contributions to the SDGs (in their validation) have an identification on the registry platform indicating which SDGs they contribute to. CCMPs that

report verified contributions have a stamp on the carbon credit issuance certificate indicating this.

7.12 Effective participation

This section presents the different environments in which Cercarbono facilitates the interaction between the different actors involved in the carbon market for the formulation, development, and transparent implementation of the CCMPs, in a way that guarantees their full and effective participation in accordance with the procedures under which they operate.

Some of these environments are public consultations, which as a planning mechanism allows the effective participation of these actors. In this regard, Cercarbono has established three public consultation types that must be considered by the different stakeholders which are implemented according to the CCMP activity and its requirements.

In addition to consultations, Cercarbono provides a space at www.cercarbono.com, dedicated to frequently asked questions and contact information in section: About us, in which the different stakeholders can also participate. These spaces for effective stakeholder participation are described below.

Cercarbono could require CCMPs, reporting on financial and other transparency dimensions, provided a suitable reporting framework becomes available or is set up as a requirement in specific situations or markets.

7.12.1 Public consultation of CCMPs

When the CCMP is developed in an area where a local population is established or when the CCMP activity may have an environmental, social, or economic impact on local populations or society in general, a public consultation by the CCMP with interested parties is required.

The objective of this consultation is to meaningfully engage stakeholders to discuss the potential environmental, social, and economic impacts (both positive and perceived as potential risks) that may be present during the design, planning, implementation, and operation stages of the CCMP and to establish a feedback mechanism in consultation with stakeholders.

The CCMP holder must report on all mechanisms used for disclosure of full and relevant consultation information.

Such public consultation shall be performed by CCMPs during its formulation or at the validation stage.

For consultation, the CCMP should prepare and make available to stakeholders a descriptive CCMP document, which should:

- Identify stakeholders, which may include a map of actors or organisations, an institutional map of governance structures or institutions and leaders associated with decision-

making in the territory, related to programme or project activities, identifying consensual decisions (and their follow-up) with local governance structures.

- Use a format and develop a content consistent with the nature of the stakeholders' group, which should include as a minimum:
  - Name of CCMP holder.
  - Brief description of the CCMP, including name, size, location, duration, and type of activities.
  - PDD summary, including GHG emissions and removals or GHG emission reductions in the project scenario and those applicable for the baseline scenario, expressed as tCO_2e.
  - Description of deviations from the selected methodology, if any, and justify why such deviations are required.
  - List of all relevant GHG emission sources and carbon pools (including criteria for selection and quantification).
  - Description of the baseline scenario.
  - General description of the criteria and procedures used for the calculation of GHG emissions and removals or GHG emission reductions from the CCMP and those applicable for the baseline scenario, expressed as tCO_2e.
  - Date of the report and period covered.
  - Evidence of the appointment of the authorized legal representative on behalf of the CCMP holder, if different from the CCMP holder.
  - Certification program the CCMP seeks to register at.
- Establish a plan or schedule of meetings for CCMP decision-making.
- Establish a mechanism for petitions, claims, complaints and requests and their traceability.
- Establish a conflict management protocol to deal with them, may they arise.
- Generate an agreement document, signed by stakeholders for the development of the CCMP.

This document shall be presented and discussed in one or more in-person meeting between the CCMP, and the stakeholders identified in or around the CCMP area. Such meetings may result in common agreements or define how stakeholders can contribute or in definitions regarding mechanisms and modalities interested parties can contribute with.

The summary of the consultation process and documentation regarding minutes of meetings and reached agreements shall be validated by the VVB in charge during the validation process.

Follow-up to such document should be reviewed at verification events.

In addition to public consultation referred in paragraphs above, Cercarbono, through its own communication channels, asks for the general society participation using the mechanism detailed in ***Section 7.12.3***. Comments received in Cercarbono's website over a period of 30 calendar days from the date of consultation reported by the CCMP are reported to

the CCMP, which must provide proper consideration to them to update the PDD, as applicable.

It is important though, if CCMP schedule allows for that, to provide prior notice to Cercarbono about such public consultation for the subject CCMP to coordinate that during that same period, the mechanism described in ***Section 7.12.3***, allowing performance of both processes at the same time.

In case a CCMP is considered as not requiring public consultation, for example, in energy efficiency projects occurring inside an industrial facility or venue without any negative impact in their surroundings, such situation and consideration shall be justified in the PDD and be validated by the VVB during the validation process. Even in such case, CCMP shall be submitted to public comments mechanism as described in ***Section 7.12.3*** and fulfilling therein included requirements to proceed with its certification process.

7.12.2 Public consultation of documents, tools and methodologies developed by Cercarbono and other stakeholders

Cercarbono and other stakeholders operating in the context of its voluntary carbon certification program shall submit for approval and use or for review by such program, baseline and monitoring methodologies, standardized calculation methods or consideration of diverse factors and values relevant for CCMPs development, methodological tools or modules developed either by Cercarbono or third parties. For this purpose, Cercarbono has established a dedicated space in www.cercarbono.com, section: ***Consultations***, where public consultation of any of the above referred types of documents is made available for a minimum period of 30 calendar days[25].

Once the consultation periods are closed, Cercarbono's responses given to each comment received are published and permanently maintained in the section: ***Consultations***.

7.12.3 Comments on projects

For the reception of requests, claims, or complaints (either anonymous or from an identified source) related to CCMPs registered in Cercarbono, there is a space available at www.cercarbono.com, section: ***Consultations/Comments on projects***. In this section, projects that have been registered are listed for 30 calendar days.

The comments received are analyzed by the certification technical team, which takes care of the due process, and duly files and maintain them, along with the response generated (if applicable), in the EcoRegistry platform as confidential documentation.

Additionally, to comment or make requests, claims or complaints about specific projects outside of this timeframe, the Request Mechanism is available, both for making requests

[25] In case the 30 calendar days period ends on a non-working day for Cercarbono, such period shall be extended until the following working day.

regarding specific projects or about Cercarbono or its registry platform, as detailed in ***Section 7.12.5***.

7.12.4 Frequently asked questions

This section contains questions and answers relevant to the formulation, development, and implementation of CCMPs, as well as to the contextualization of actors participating in the carbon market. This section is frequently updated.

7.12.5 Contact and Grievance Mechanism

In the section: ***Contact***, carbon market stakeholders can submit doubts, questions, or point comments, not related to specific CCMPs, through communication channels listed therein.

For reception of requests, claims, or complaints (either anonymous or from an identified source) about the Cercarbono certification program, about the registry platform or about CCMPs registered in Cercarbono, there is a space available at www.cercarbono.com, section: About us/Request Mechanism. The functioning of this mechanism is explained in section ***Grievance Mechanism*** of the ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

7.13 Legal and document management

CCMPs must keep and maintain all documentation and records generated to demonstrate that the CCMP activity has been implemented as designed. Any deviation of the implementation from the design must be soundly justified. Therefore, the CCMP must have documentation that demonstrates its compliance with the requirements of this protocol. Such documentation must be consistent with the validation and verification requirements of the Cercarbono certification program, considering the guidelines of *ISO 14064-2:2019*, or that complementing or substituting it, requiring:

- Establishing and maintaining a comprehensive reporting system.
- Conducting internal audits and periodic technical reviews.
- Adequate training for project team members.
- Performing periodic verifications to detect technical errors.
- Conducting uncertainty assessments.

The CCMP holder must have documentation demonstrating CCMP's compliance with this protocol. Such documentation must be consistent with that assessed during the validation, verification, and certification processes. The EcoRegistry platform supports all information from the entire project cycle, generated by those responsible for each stage of the project.

7.13.1 Management of legal requirements

The CCMP shall list, describe, and justify compliance with laws, statutes, and regulatory frameworks governing it (at the local, regional, and national levels), applicable to the CCMP

activity, including environmental requirements and registration of the CCMP's concrete actions in national registry systems, where applicable.

Additionally, the CCMP holder must sign a declaration that the CCMP has not been registered for carbon credits under any standard or certification scheme, nor for GHG removals or GHG emission reductions required by a specific legal or regulatory framework and that, once registered by Cercarbono, it shall not seek partial or full registration of the CCMP under any other standard or program, or its use for the fulfilment of any climate change mitigation commitment required by a particular legal or regulatory framework, unless it withdraws the CCMP from Cercarbono in compliance with the requirements defined for that purpose. For this purpose, Cercarbono may request additional information, clarifications, or corrections regarding an already validated CCMP, if warranted.

7.13.2 Data quality management

The CCMP shall establish and implement data and information quality and management procedures, including uncertainty assessment, relevant to the baseline and project scenarios, as stipulated in the selected methodology. The CCMP should minimize, as far as possible, uncertainties in the quantification of GHG removals or GHG emission reductions.

8 Approved validation and verification bodies

Validation and Verification Bodies (VVBs) approved by Cercarbono must demonstrate they are accredited by an International Accreditation Forum (IAF) signatory member accreditation body, which provides services regarding GHG Emission Validation or Verification Body accreditation following the requirements of *ISO 14065:2020, ISO 14064-3:2019,* and *ISO/IEC 17029:2019*, or those complementing or substituting them (see ***Section 13.3***). VVBs accredited before the Article 6.4 mechanism of the Paris Agreement, as Designated Operational Entity (DOE) are also approved.

In national contexts, VVBs approved by Cercarbono shall be accredited as per established in the applicable specific regulation.

The list of approved VVBs is available at www.cercarbono.com.

VVBs are required to issue a validation report and validation statement supporting the baseline and project scenario GHG declarations by the CCMP holder, and a verification report and verification statement indicating that GHG removals or GHG emission reductions achieved by the CCMP were generated in accordance with the selected methodology and criteria defined in this protocol.

Cercarbono must review any conflict of interest that arises regarding a VVB or its assigned personnel. If a conflict exists, Cercarbono must appoint a committee to study the case and based on the review and analysis of the conflict, the VVB could or could not be allowed to operate under Cercarbono's voluntary carbon certification programme. For this purpose, Cercarbono has a ***VVB Declaration of Conflict of Interest*** form, available at www.cercarbono.com, section: Documentation. Such declaration using said form is mandatory prior to the validation and verification processes.

Technical capacity of VVBs is assessed based on demonstration of up-to-date certifications in relevant standards and its participating team in validation and verification events holds required qualifications.

At each certification process, Cercarbono's technical team documents any validation/verification-related observation or finding as detected throughout the certification cycle. This is documented in the history of change request for each project.

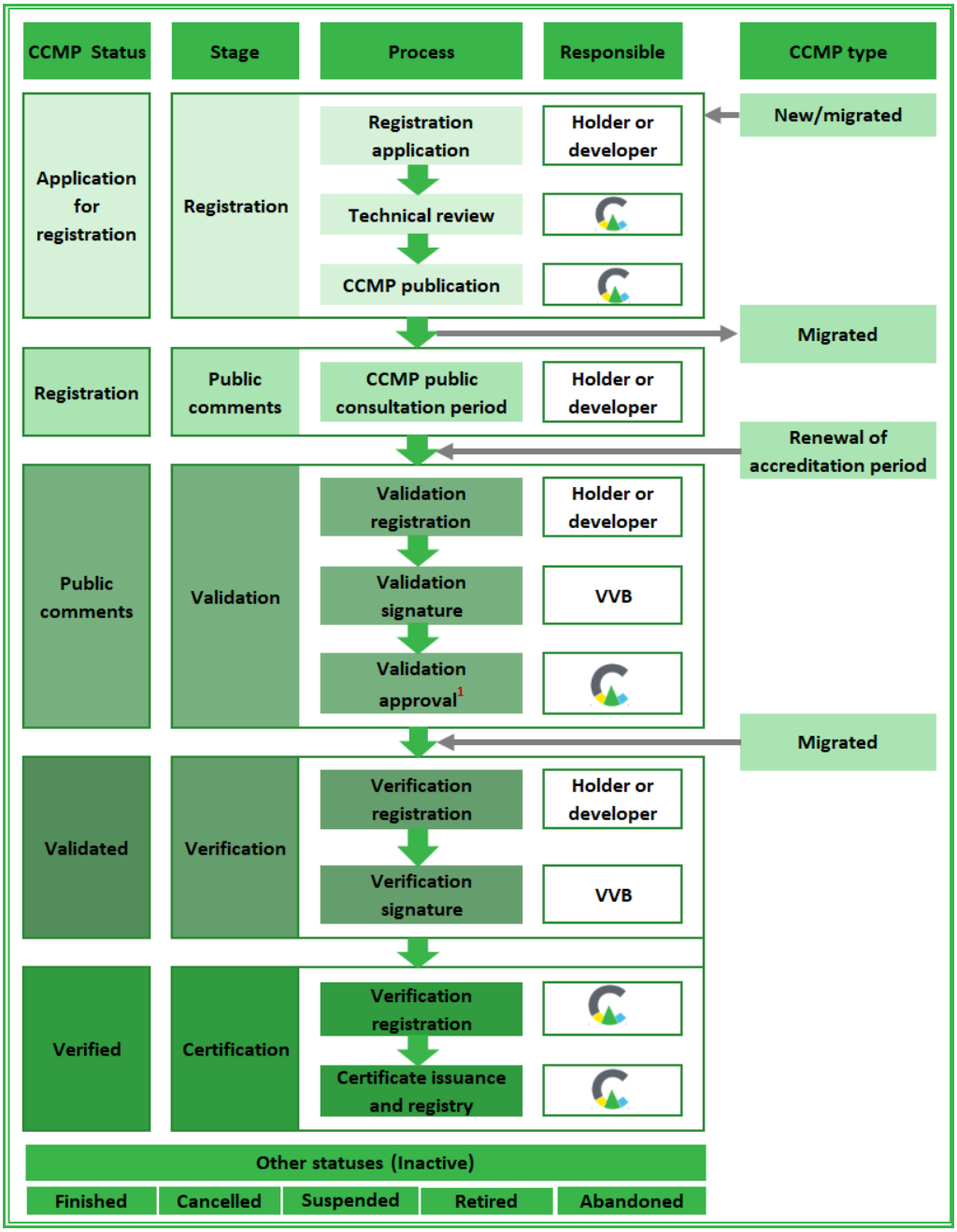
Additionally, an annual training program for VVBs has been established, designed based on capacity reinforcement needs on specific subjects performed during Cercarbono's VVBs oversight activities.

Complementary elements to what has been described in this section are provided in the ***Procedures of Cercarbono's Certification Programme*** document, available at www.cercarbono.com, section: Documentation.

9 CCMPs project cycle stages

Cercarbono has established the following stages for carrying out the voluntary carbon certification process: formulation, public consultation, validation, verification, and certification. These stages are schematically presented in ***Figure 2*** and explained in the following sections.

Figure 2. Cercarbono's certification status, stages, processes, and responsible parties.



1. Only if CCMP does not perform joint validation and verification.

For more information see section ***Certification cycle procedures*** of ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

9.1 Registration

To participate in Cercarbono's voluntary carbon certification program it is required to open an account, either on the EcoRegistry platform, or also by logging in through www.cercarbono.com and, once the section: Projects, redirecting to the EcoRegistry platform.

This platform hosts all the information that is part of the pre-registration, formulation, validation, verification, and certification processes for the registration of the CCMP and the issuance, monitoring, transfer, and retirement of the Carboncer.

At this stage the CCMP applies for its registration in Cercarbono (and therefore in the EcoRegistry platform), at the email address: info@cercarbono.com.

The developer must have a valid representation document or a special power of attorney from the CCMP that accredits her/him as a representative. Cercarbono has two forms of powers of representation: ***Power of Attorney whit Withdrawals*** and ***Power of Attorney Without Withdrawals***, available at www.cercarbono.com, section: Documentation, to which legal ID of the persons making the declarations should be attached.

A Cercarbono technical reviewer verifies that the documentation provided is in compliance with the requirements, including a technical review for mapping presentation[26], the absence of non-compliant overlaps, the required authorizations and powers of attorney, proof of ownership or legally acknowledged tenure of the area where the CCMP will be implemented, and general aspects on information consistency and completeness and required templates, among others, as detailed in the ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

Once this stage is approved, the CCMP is published and appears visible on EcoRegistry registry platform in **Registration** status and enters the public comments stage.

9.2 Public comments

Once the CCMP is published, the period for public comments starts on Cercarbono's website, which links to the CCMP record on the registry platform and remains open for 30 calendar days[27]. Comments received are processed by Cercarbono, addressed by the CCMP, and become part of the CCMP record on the registry platform.

See the ***Procedures of Cercarbono's Certification Programme*** document, available at www.cercarbono.com, section: Documentation for more information.

[26] According to provisions as per in ***Guidelines for Mapping Presentation and Analysis***.
[27] In case the 30 calendar days period ends on a non-working day for Cercarbono, such period shall be extended until the following working day.

9.3 Validation

At this stage, the CCMP requests the registration of its validation, based on the assessment of its design and its baseline scenario by a VVB. Following the assessment, a validation report is produced. If the CCMP design meets all the requirements of the validation process of this protocol, the selected methodology and the current standards or laws under which it is governed, a validation statement is issued; otherwise, corrective actions are requested for adjustment of the CCMP and subsequent review by the VVB.

At this stage, the technical manager and the assigned expert(s) review the validation documents and compliance with the relevant requirements. If missing items are found or need to be corrected or expanded, change requests can be made on the platform and must be addressed by the VVB or the CCMP developer.

During this stage, the CCMP appears on the EcoRegistry platform with a **Public comments** status. Once this stage is approved, and until the verification stage starts, the CCMP appears on the platform with a **Validated** status.

Note: It is possible to perform simultaneously the validation and verification processes by a VVB, whose compliance is integrated in a single report. In these cases, if there are no corrective actions, a joint validation and verification statement may be generated, which can be used both in the CCMP registration and emission certification by Cercarbono and then in the registration and issuance of carbon credits in EcoRegistry.

The most relevant elements to consider in the validation process are detailed in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

9.4 Verification

At this stage, the CCMP requests the registration of its verification, based on the assessment of the monitoring of its implementation by a VVB. Following the assessment, a verification report is produced. If the CCMP implementation complies with all the requirements of the verification process in this protocol, the selected methodology and the current standards or laws under which it is governed, a verification statement is issued; otherwise, corrective actions are requested for adjustment of the CCMP and subsequent review by the VVB.

During this stage, the CCMP appears on the EcoRegistry platform with a **Validated** status. This stage is approved by Cercarbono during the Certification stage.

Once the CCMP and the VVB upload the required information to the platform and Cercarbono starts the document review, the CCMP appears on the platform with a **Verified** status.

The most important elements to consider in the verification process are detailed in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

9.4.1 Timing of verification events

CCMPs may conduct verifications (depending on the type of program or project, mitigation results achieved and developer preferences) at most every six months and at least every three years.

If for some reason the CCMP considers it will not perform such verification within the remaining of the 3-year period, it may be granted a six months grace period, provided Cercarbono program is notified on the expected delay with a justification and it is authorized. The subject notification shall be received by Cercarbono prior to the three-year period, counted from the last verification event lapses or, in the case of its first verification, five years from the start of the CCMP.

Once above referred periods including the grace period described, as applicable, are over, if the CCMP has not performed any verification events, such CCMP will be considered as Abandoned.

9.5 Joint validation and verification

As explained in ***Section 7*** and ***Figure 2*** above, even under this modality, where validation and verification processes are performed in a single event by the same VVB, they must follow the due order (I.e., validation must always precede verification). Accordingly, even when the validation and verification report is issued jointly or on the same date, all activities, findings and pending issues related to the CCMP validation must be performed or resolved prior to verification ones, maintaining that sequence.

Following sections describe a series of duties and tasks the VVB must comply with / perform independent of the modality of choice (separate or joint validation and verification), to appropriately manage such processes.

9.5.1 VVB requests

The VVB must report requests for clarifications, misstatements, or non-conformities to the CCMP as soon as possible and report intentional errors or non-compliance with governing laws or regulations.

If the CCMP holder fails to respond adequately within a maximum period of six months, the VVB issues a negative validation or verification opinion justifying its withdrawal from the process. Similarly, if the VVB determines that there is insufficient information to support a validation or verification statement, it must request the missing information. If such information is not provided, the process cannot continue.

9.5.2 List of VVB information

The VVB must keep the following records:

- Terms of engagement.
- Validation and verification plan.

- Evidence collection plan.
- Evidence collection.
- Requests for clarifications, corrections or non-conformities arising from the validation and verification, and conclusions reached.
- Communication with the client on important requests.
- Supporting records or documentation collected during audits and field visits.
- Conclusions and opinions of the validation and verification team.

Documentation of CCMP validation and verifications remains available on the EcoRegistry platform for a minimum period of ten years.

9.5.3 Collection of evidence

VVBs in charge of validation and verification processes should use one or more of the following collection activities and techniques:

- Observation.
- Consultation.
- Analytical tests.
- Confirmation.
- Recalculation.
- Examination.
- Tracking.
- Control tests.
- Sampling.
- Estimation.
- Cross-checking.
- Reconciliation.

If the VVB determines that there is insufficient information to issue a validation or verification statement, it should request additional information from the client. If such additional information cannot be obtained, the validator or verifier shall not proceed further.

9.5.4 Facts discovered after validation or verification

The VVB should obtain appropriate and sufficient evidence and identify relevant information up to the date of the validation and verification opinion. If facts or new information that could materially affect the validation and verification opinion are discovered after that date, the VVB should take appropriate action, including communicating the matter as soon as possible to the CCMP. The VVB may also communicate to other interested parties the fact that the reliability of the original opinion may now be compromised given the discovered facts or latest information.

If there is a material adjustment that needs to be made to the GHG statement, the validator or verifier should communicate the need for such adjustment to the responsible party.

If, in the opinion of the VVB, the party responsible does not respond appropriately within a reasonable period, the validator or verifier must inform the client, if different from the party responsible. If, in the opinion of the validator or verifier, the client does not respond appropriately within a reasonable time, the validator or verifier should (a) issue a modified validation or verification opinion or (b) withdraw the validation or verification.

The validator or verifier must communicate non-material findings to the responsible party.

If the facts are discovered after carbon credits have been issued, Cercarbono will seek to compensate for the integrity of those credits in future verifications of the same CCMP provided there is no availability of non-commercialized credits enough to be cancelled in compensation or, if this is not possible, backing such credits by means of the Cercarbono pooled carbon buffer, initiating the process for credits replacement into the buffer by the CCMP.

9.6 Certification

Once the CCMP and the VVB upload the required information to the platform and Cercarbono starts the document review, the certification stage starts immediately, and the technical director and the assigned expert(s) review the verification documents (or validation and verification documents if it is a joint process) for compliance with the corresponding requirements. If missing items are found or need to be corrected or expanded, change requests can be made through the platform and must be addressed by the VVB or the CCMP developer.

Once compliance with the requirements has been duly assessed, a certification report is generated, and issuance of related credits certification is made. EcoRegistry is notified and the certificate is uploaded into the platform, so CCMP information is updated according to credits obtained as per in the verification statement. The ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation, sets out the process for issuing, retiring, and cancelling carbon credits.

During this stage, the CCMP appears on the EcoRegistry platform with a **Verified** status.

Once the credits are issued, the CCMP becomes **Certified**, and remains as **Active** until a new verification process is initiated or until it is de-registered due to cancellation, withdrawal, suspension, or abandonment, in which case the CCMP remains permanently in the **Cancelled**, **Suspended**, **Retired**, or **Abandoned** status, respectively, as established in the ***Procedures of Cercarbono's Certification Programme***.

The duration of the Cercarbono voluntary carbon certification process varies according to the progress of the validation and verification processes. If both stages are completed and no issues or concerns regarding support documentation are raised, the process takes a maximum of twenty working days; otherwise, time required to review/approve change requests shall be added to that period.

If a CCMP is validated, the time in the registration process depends on the users in charge of the progress of the CCMP in each stage, if EcoRegistry does not request missing or additional information or documentation from the holder, the developer or the VVB; otherwise,

they must incorporate the requested information or documentation, which immediately resumes the process.

If a CCMP is verified, the Carboncer emission certification and registration process has a maximum duration of twenty working days if no (missing or additional) information or documentation is requested by the certifier by means of change requests.

In case change requests are generated, the processing time halts until the CCMP delivers and upload requested information or documentation, once this has been performed the process resumes immediately and, according to the nature of corresponding findings, up to twenty additional working days from that point could be required.

The costs associated with the Cercarbono voluntary carbon certification process depend on the specific conditions of the CCMP and the service requested. This information can be requested by contacting directly info@cercarbono.com.

9.7 Facts discovered after certification

As part of the ongoing review process, Cercarbono's voluntary carbon certification program monitors certified CCMPs, which can generate, if necessary, notifications on post-certification findings, which are communicated directly to the VVB and in some cases to the program or project holders to request justifications or formal changes to the CCMPs, as applicable.

Such findings could be also made by the VVB or the CCMP holder, in which case this shall be immediately communicated to Cercarbono to consider pertinent actions and procedures.

10 Registry platform

Cercarbono uses EcoRegistry[28] as its CCMP registry platform. EcoRegistry is a platform based on blockchain technology that ensures transparency in carbon market accounting and security and traceability in the management of information related to mitigation initiatives.

Complementary information on the above is detailed in the document ***EcoRegistry Platform Connectivity***, available at www.ecoregistry.io.

For more information on the features and use of the platform, see the ***EcoRegistry User Guide Registry Platform***, available at www.ecoregistry.io.

Regarding the Cercarbono certification process, EcoRegistry's exclusive role is to provide the Cercarbono registration platform service. EcoRegistry has no influence on the decisions and results of the certification process.

This platform is responsible for record keeping and managing user accounts, information provided by the users, communications between users, keeping records of the results of the different stages of the certification cycle and the information related to the carbon credits and buffers issued.

[28] www.ecoregistry.io.

11 Migration of CCMP from other standards or certification programmes

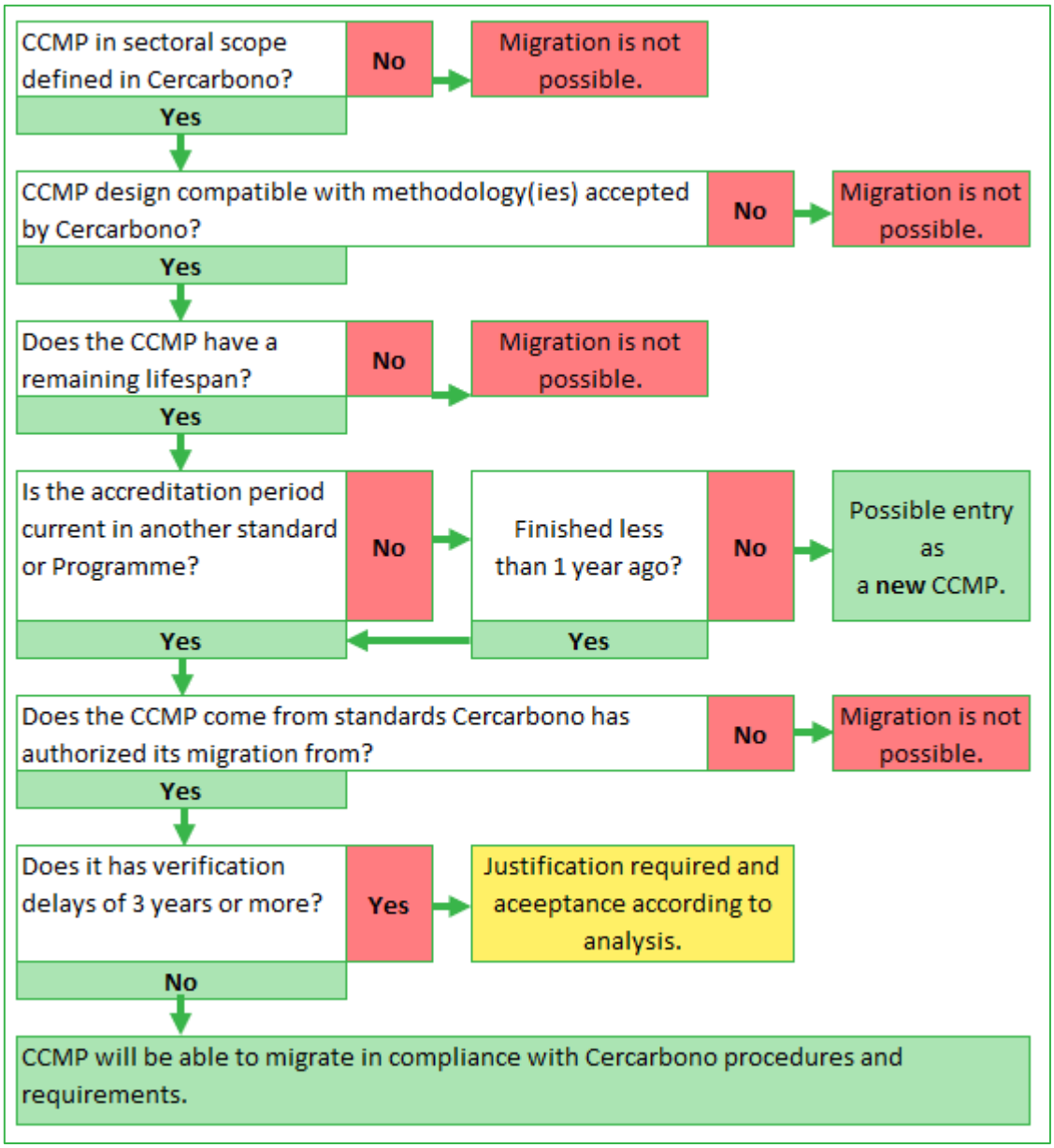
The holder or developer of a CCMP seeking to generate and certify carbon credits under the Cercarbono programme has two options to achieve this:

- Propose and develop a CCMP from its original formulation with Cercarbono.
- Existing CCMP's migration from other standards or certification schemes to Cercarbono's voluntary carbon certification scheme (see ***Figure 3***).

In the first option, the CCMP should follow the steps described in ***Section 7***. For the second option, the CCMP, in addition to the provisions of that section, should consider the decision tree presented in ***Figure 3***. In addition, the CCMP shall complete the information requested in template ***Migration Analysis*** form, available at: www.cercarbono.com, section: Documentation, which will be reviewed by the Program Direction, and an official response on such potential migration issued.

The requirements and procedures for the migration of CCMP are detailed in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

Figure 3. Migration of CCMPs from other standards or certification programmes into Cercarbono.



12 Cercarbono's official reports

12.1 Reporting aligned to international commitments

Cercarbono will generate reports on credits issued by the certification programme that facilitate and support the reporting of Nationally Determined Contributions (NDCs) and corresponding adjustments of Internationally Transferred Mitigation Outcomes (ITMOs) under the cooperative approach for use towards an NDC, in accordance with Article 6 of the Paris Agreement.

Cercarbono utilize a technically justified parameterization (also referred as “attributes") in the serials of the carbon credit certificates issued for each tCO_2e removed or reduced by the certified CCMPs, which allows for reports generation providing specific information about the carbon credits issued by:

- Country.
- Sector.
- Type of mitigation activity.
- Year of generation.
- Pools, where applicable.
- REDD+ activity, where applicable.

The ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation, sets out the attributes assigned to the Carboncer.

For REDD+ projects, the serials are disaggregated by REDD+ activities and pools, which will allow linking these with the activities and pools considered in the FRELs established by each country, thus providing clarity on the effective use of ITMOs in the NDCs.

The reports will also provide information on the trading of credits issued by Cercarbono; this information is stored in the program's registry to prevent double counting and promote transparency.

Each country can request this report from Cercarbono to assist in the preparation of the Biennial Transparency Report (BTR), which countries must start submitting by December 31, 2024, and bi-yearly thereafter. The BTR is expected to track the progress made by each country in complying with the NDCs.

Although the global voluntary carbon market is unclear about the corresponding adjustments to be made by each country (the one the project is implemented in and the country purchasing the credits), Cercarbono seeks to establish a way to manage the information on credits issued and demonstrate that environmental integrity is possible in voluntary carbon markets through this tool.

The tool will allow the generation of an annual report on the units issued by country, according to their status of statement regarding the intention of no double counting by their host country.

In the same way, planning is in place to establish procedures, for each relevant host country, to periodically assess consistency between what is reported by the country in terms of corresponding adjustments and the units issued by Cercarbono for that country at the time of submission of its Biennial Transparency Report.

Cercarbono will define mechanisms to compensate, replace or otherwise reconcile mitigation subject to double claiming by a host government.

12.2 Annual report

Cercarbono generates an annual report on its performance for the year previous to the date such report is produced. It provides summary information to clients and CCMP stakeholders on the types of mitigation activities included by sector, the status of the registry, geographical distribution, certification events carried out, carbon credits (issued, retired and available) and the carbon buffer. It also includes financial information on the standard and updates or new developments in its documentary output. This report is available at www.cercarbono.com, section: Documentation.

13 Validity and transitional regimes

13.1 Protocol and procedures

The applicable versions of the ***Cercarbono's Protocol for Voluntary Carbon Certification*** and the ***Procedures of Cercarbono's Certification Programme***, as well as for the remaining applicable documents and templates from its regulatory framework are those in force at the official registration application time or at the renewal of the crediting period of CCMPs, or those valid 90 days previous to the start of the validation process for such CCMP, in case more than 90 days are elapsed between both milestones[29, 30].

13.2 Methodologies

As Cercarbono's certification programme allows the use of its own methodologies or those approved by the standard for use, some of them coming from other standards or certification programmes (if they are free to use or have the necessary authorization), and all of them subject to review, and giving consideration to the time needed to formulate a CCMP as well as to undertake the certification cycle, a transition regime between the methodology version initially used and the current methodology version must be considered, depending on the progress of the CCMP throughout the project cycle defined by Cercarbono:

- If the CCMP is at the registration or validation stages for a period of no more than nine months, the methodology in force at the time of its official registration application, provided no more than 90 days are elapsed between the end of the registration stage and the beginning of the validation stage.
- If the CCMP starts its validation after such ninety days period as described in above item, it shall use the valid version at the moment the validation starts.
- If the CCMP is **Under verification** or **Under certification**, it can use the methodology in force when it started its verification.
- CCMPs migrating from other standards or Programs and using non-CDM methodologies (but which are in the public domain or have the approval of the standard or authors for their use), shall use the most recent version of the Cercarbono methodology that covers the scope of the proposed project activities, regardless of the stage at which they are registered. If Cercarbono does not have such a methodology, they may use the most recent version of the methodology which they were based on.
- CCMPs registered in Cercarbono that still have an crediting period but were validated under a methodology external to Cercarbono no longer in force, may use a methodology approved by Cercarbono that covers the scope of the proposed project activities or, if

[29] The "start of the validation process" is considered as the first action demonstrating in writing, the start of the project validation process.
[30] Please see ***Cercarbono's Guidelines for the Use of Protocol's Versions by Holders, Developers and VVBs***, available at: www.cercarbono.com.

required, request methodological deviations to such approved methodology, considering provisions in ***Section 6.3*** and in the document ***Procedures of Cercarbono's Certification Programme***, available at www.cercarbono.com, section: Documentation.

- In the case of CCMPs renewing their crediting period whose applied methodology version is no longer in force, they shall adjust their design and documentation to the current version.

13.3 ISO Standards

The use of ISO or ISO/IEC standards is subject to the transition regime and terms established by ISO for VVB accreditation and for general standards application at the general level.

In case of regional or national programs having different provisions to those above, regarding applicable ISO standards version in the specific context, valid provisions for them shall apply.

Cercarbono's approved VVBs, to retain such approval, shall in all cases follow accreditation related provisions in the new standards version as dictated by ISO.

14 References

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ISO 14066:2023. *Greenhouse gases - Competence requirements for greenhouse gas validation teams and verification teams*.

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15 Document history

Version	Date	Comments or changes
1.0	23.09.2019	Initial version of the protocol in public consultation from 23.09.2019 to 07.10.2019.
1.1	30.10.2019	Version with adjustments and changes generated after public consultation.
2.0	10.03.2020	Version for public consultation integrating new definitions and programme/project activities in the energy, industry, transport, fugitive emissions, and forestry sectors. Version 2.0. Public consultation held from 10.03.2020 to 30.03.2020.
2.1	13.04.2020	Version with adjustments and changes generated after the second public consultation.
3.0	03.08.2021	Version for public consultation from 03.08.2021 to 03.09.2021.
3.1	02.11.2021	Version with adjustments and changes generated after public consultation.
4.0	22.06.2022	Version for public consultation from 22.06.2022 to 21.07.2022. New ISO Standards, sectoral scopes, scope of activities considered in the protocol and numerous minor changes are updated and added.
4.1	29.07.2022	Version with adjustments and changes generated after the second public consultation.
4.2	30.03.2023	Some texts were moved to the Procedures document; minor text adjustments, addition of references to other Cercarbono policy documents.
4.3	18.10.2023	Extended explanation and references to other normative documents on no net harm principle, VVB oversight, methodologies, and leakage.
4.4	27.03.2024	General format review to improve transparency and understanding, including concepts and notes related to applied criteria, non-explicit previously. Editorial changes to adequately describe specific items and processes according to current implementation for them.
4.5	03.03.2025	Revised section 7.3.6 to make explicit, leakage from CCMPs involving displacement/replacement of equipment/systems/other hardware shall be assessed, quantified and considered in net GHG emission reductions / removals calculation in accordance with the planned project scenario status for such equipment/systems/other hardware, including title change and other editorial changes to sections 7.3.6.1 to 7.3.6.9.
4.5.1	09.03.2026	Strengthening of baseline-setting provisions by introducing increased ambition section related to baseline GHG emissions and/or removals treatment to ensure consideration of below business-as-usual scenarios.
4.5.2	30.04.2026	Description of baseline reassessment activities at crediting period renewal events which was implicit, providing additional clarification.