

**puro·earth**

# **Puro Standard General Rules**

**Version 4.1**





# Puro Standard General Rules

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## 1 PURPOSE AND GOVERNANCE

### 1.1 Puro Standard, Registry and System

- 1.1.1. The aspiration is to create a functioning framework for certification of Long-Term, durable CO<sub>2</sub> Removal, which is reliable, efficient and location independent. The aim is to generate an incentive for CO<sub>2</sub> Removal and to provide companies with a means to realize their societal value in reversing climate change.
- 1.1.2. The Puro Standard and the Registry are a program for the issuing, transferring, and retiring of CO<sub>2</sub> Removal Certificates (CORCs). In the System, Production Facilities capable of removing CO<sub>2</sub> are independently audited and certified. CORCs are issued for verified volume of Long-Term Net Carbon Dioxide Removal realized over a time in these Production Facilities. These CORCs are then transferable to other Account Holders. The value of the CORC is realized by Retirement, thereby removing it from circulation and making the Beneficiary of the Retirement the sole owner of the CO<sub>2</sub> Removal Attributes.

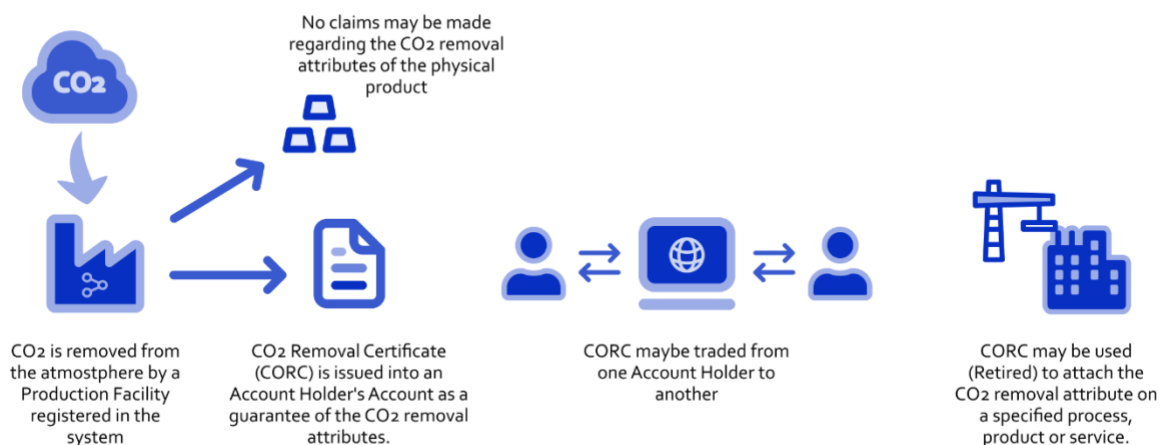


Figure 1. The lifecycle of CO<sub>2</sub> Removal Certificates (CORCs).

- 1.1.3. All processes aim to exclude the possibility of more than one CORC being issued for the same volume of CO<sub>2</sub> Removal and that the CORC issued represents the sole proof of ownership of the associated CO<sub>2</sub> Removal Attributes.
- 1.1.4. All System participants need to be registered Account Holders of the System and need to have signed the Platform Agreement. The Issuing Body shall perform standard know your customer checks for each Account Holder.
- 1.1.5. The Registry stores information of the CORCs issued, transferred, and retired.

### 1.2 PURPOSE OF THE GENERAL RULES

- 1.2.1. These rules define the roles and responsibilities of different actors in the System and facilitate assessment of contractual compliance. The aim of these rules is to protect the rights of Account Holders of the System and to guarantee equal treatment.

- 1.2.2 These rules and the Methodologies published on the website define the procedures to verify the compliance of the CO<sub>2</sub> Removal activity for issuing of CORCs and conservative quantification of the CORCs.
- 1.2.3 These rules shall be interpreted and applied according to the Puro Standard requirements, which are normative documents approved and published by the Issuing Body to clarify and facilitate compliance with the rules by all System participants.

### 1.3 GOVERNANCE OF THE PURO STANDARD

- 1.3.1 The rules of the Puro Standard are governed by the Advisory Board. All changes to these rules are subject to the Advisory Board's approval.
- 1.3.2 The Advisory Board comprises at least three members and a maximum of seven all of whom are independent experts with a vantage point to the developments in the Compliance and Voluntary Carbon Markets. The Advisory Board shall nominate new members as required and approve new members to the Advisory Board as defined in the Terms of Reference.
- 1.3.3 The Advisory Board may request revision to the Puro Standard and Methodologies as necessary. A review is requested when either an Advisory Board Member or Puro.earth management deems that significant changes have occurred in regulations, technologies, carbon accounting, or other provisions.
- 1.3.4 Should the review result in material revisions and/or new Methodologies, they shall be sent to public consultation before approval. Public consultation is announced on the Puro.earth website and to ecosystem members via a newsletter. Stakeholder comments are considered, and consultation results are published on the same website.
- 1.3.5 Methodologies are normative documents specifying the rules and procedures that CO<sub>2</sub> Removal Suppliers need to follow and comply with to be issued CORCs. The Methodology development process described in the *Methodology Development Requirements* involves the creation of a scientific independent expert group that prepares the draft text to be sent for public consultation and then Advisory Board approval.
  - 1.3.5.1 The principles that guide methodology development are:
    - i. Scientifically sound, conservative quantification of climate impact.
    - ii. Safety, environmental, and social safeguards.
  - 1.3.5.2 The Methodology shall address the following components:
    - i. Applicability or eligibility criteria of the Puro Standard and those specific to the CDR process.
    - ii. Determination of the accounting boundary and quantification of Greenhouse Gas removals and emissions.
    - iii. Determination of the baseline scenario.
    - iv. Determination of additionality.
    - v. Determination of leakage.
    - vi. Expectation of storage duration (i.e., permanence) and risks of reversals.
    - vii. Definition of uncertainty in calculations and assumptions.
    - viii. Mitigation of environmental and social safeguards.
    - ix. Determination of positive Sustainable Development Goals (SDG) impacts.
    - x. Monitoring practices, roles, and responsibilities.

- 1.3.6 External methodologies can be submitted for Advisory Board approval.
- 1.3.6.1 Before an external methodology can be considered for use within the Puro Standard, the Puro team shall assess that the external methodology is materially different from existing Methodologies in the Puro Standard.
- 1.3.6.2 An external methodology is considered materially different when it covers a carbon dioxide removal pathway not already addressed in existing approved methodologies, at the moment of the assessment. It may also include methodologies developed by national or intergovernmental organizations (e.g. United Nations, European Union).
- 1.3.6.3 The assessment process of the external methodology is further detailed in the document *Methodology Development Requirements*.
- 1.3.6.4 The external Methodology shall address the same components included in the Methodologies developed by Puro and listed under clause 1.3.5.2 of this document.
- 1.3.6.5 The materially different external methodology shall undergo public consultation before being sent to the Advisory Board for consideration. As part of this process, any public request for clarification and/or comments about the methodology shall be publicly addressed. Any resulting modifications to the methodology shall be included before submission to the Advisory Board for approval.
- 1.3.6.6 When necessary, the Advisory Board can request assistance from external scientific experts in determining the viability of the methodology under assessment.
- 1.3.6.7 In the case the methodology is approved by the Advisory Body, the text of the methodology and any addenda resulting from this process shall be made available publicly on the Puro.earth website for future reference.
- 1.3.6.8 Approved external methodologies shall undergo the same development and review process as other Methodologies according to the document *Methodology Development Requirements*.

## 1.4 OTHER GENERAL RULES

- 1.4.1. The Issuing Body is responsible for accreditation and oversight of Auditors according to the Validation and Verification Requirements. A list of Auditors accredited by the Issuing Body is available on the Puro.earth website.
- 1.4.2 The Issuing Body is responsible for the retention of all records for a minimum of 5 years.
- 1.4.3. The Issuing Body shall have robust anti-money laundering processes in place and follow practices consistent with robust anti-bribery and anti-corruption guidance and regulation.
- 1.4.4. The terms with a capitalized first letter which are used in these rules shall have the meanings respectively ascribed to them in the Definitions section.

## 2 CERTIFICATION PROCESS DESCRIPTION

This section provides an overview of the certification process under the Puro Standard. Service fees related to the certification process are defined in the Platform Agreement.

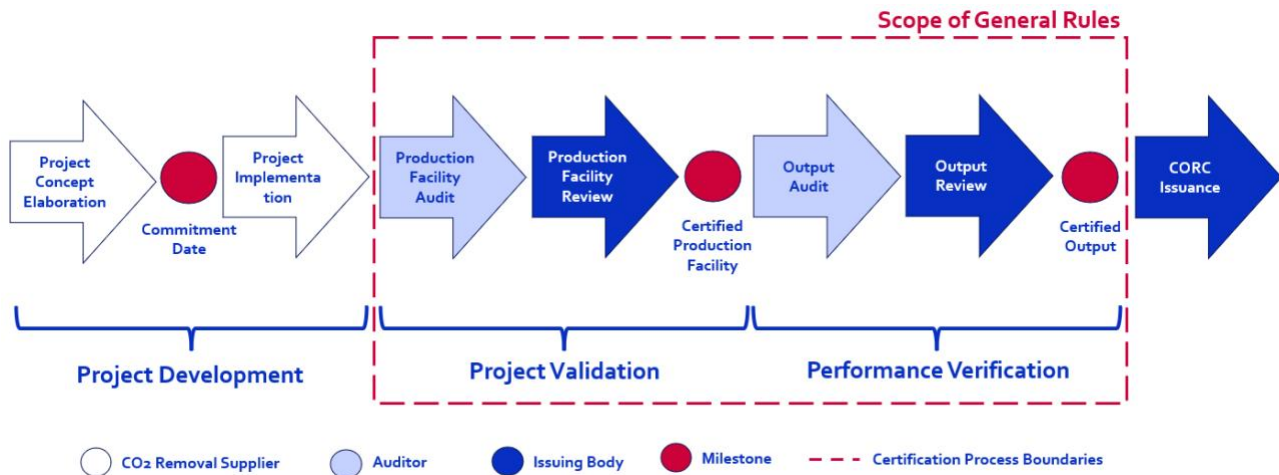


Figure 2: Diagram of the Puro certification process and the scope of the General Rules.

### 2.1 PROJECT DEVELOPMENT

2.1.1 A CO<sub>2</sub> Removal Supplier develops a project with the purpose of sequestering and storing carbon durably. Certification is considered to generate revenues to operate the CO<sub>2</sub> Removal activity.

2.1.2 A Commitment Date of a CO<sub>2</sub> Removal activity is the calendar date on which the CO<sub>2</sub> removal Supplier (the project developer) committed to implementing the CO<sub>2</sub> Removal activity .

### 2.2 DESIGN VALIDATION

2.2.1 Design validation (see Figure 2) involves a Production Facility Audit by an independent 3<sup>rd</sup> party auditor, followed by a Production Facility Review by the Issuing Body.

2.2.2 All CO<sub>2</sub> Removal Suppliers shall submit their data for design validation.

2.2.3 The design validation shall be completed within three (3) years of the Commitment Date.

#### 2.2.4 Production Facility Audit

2.2.4.1 A Production Facility Audit shall start when the CO<sub>2</sub> Removal Supplier has:

- i. Complied with the Know Your Client (KYC) process.
- ii. Signed the Platform Agreement.
- iii. Submitted the Production Facility registration.
- iv. Submitted Production Facility Audit documentation as defined for the applicable Methodology and determined complete by the Issuing Body.

2.2.4.2 The minimum Production Facility Audit documentation includes the project description. The project description shall include

- i. Production Facility name, location, Methodology, CO<sub>2</sub> Removal Supplier
- ii. A non-technical description of the activity
- iii. Technical description of the activity and its technology
- iv. Net CO<sub>2</sub> Removal quantification, including Uncertainty estimation
- v. Reversal risk estimation and monitoring
- vi. Demonstrated conformity to requirements in the applicable Methodology.
- vii. Monitoring and reporting plan.
- viii. Baseline and Additionality Assessment Report.
- ix. Stakeholder Consultation.
- x. Environmental and Social safeguards.
- xi. Positive Sustainable Development Goals (SDG) impacts description

2.2.4.3 The CO<sub>2</sub> Removal Supplier shall attest to the accuracy of the information provided by its signature. The signatory shall be an individual with legal signing authority within the CO<sub>2</sub> Removal Supplier.

2.2.4.4 The Production Facility Audit is conducted by an independent 3<sup>rd</sup> party Auditor. The Issuing Body shall appoint one Auditor from the list of accredited Auditors.

2.2.4.5 The Auditor validates the Production Facility Audit package and evidence to demonstrate conformity to all Puro Standard and Methodology requirements. The Auditor submits an evaluation in the Production Facility Audit Report and Statement.

### **2.2.5 Production Facility Review**

2.2.5.1 A Production Facility Review is conducted by the Issuing Body. It involves a review of the Production Facility Audit Report and the documentation submitted by the CO<sub>2</sub> Removal Supplier for the Production Facility Audit.

2.2.5.2 The Production Facility Review may result in

- i. A successful review whereby the Production Facility receives the status as certified as listed on the Puro.earth website.
- ii. An unsuccessful review with one or more non-conformity issues identified.

2.2.5.3 With an unsuccessful Production Facility Review outcome, the CO<sub>2</sub> Removal Supplier will have a reasonable opportunity to address the identified non-conformity issues within 30 days and submit once new/revised documentation for a re-review.

2.2.5.4 With a successful Production Facility Review outcome, the CO<sub>2</sub> Removal Supplier can move to prepare for Output Audit.

2.2.5.5 The Issuing Body publishes the project description, Production Facility Audit Report and Statement in the Registry.



## 2.3 PERFORMANCE VERIFICATION

2.3.1 Performance verification involves an Output Audit by an independent 3<sup>rd</sup> party Auditor, followed by Output Review by the Issuing Body.

### 2.3.2 Output Audit

2.3.2.1 An Output Audit may start when the CO<sub>2</sub> Removal Supplier has submitted an Output Report for a Production Facility for a given Monitoring Period.

2.3.2.2 An Output Audit is conducted by an independent 3<sup>rd</sup> party Auditor. The Issuing Body will appoint one Auditor from the list of accredited auditors. The same auditor may conduct the Production Facility Audit and the Output Audit.

2.3.2.3 An Output Audit includes a desk study and a site visit by the Auditor to verify the performance of the Production Facility for the given Monitoring Period. The site visit may be conducted as a remote site visit. Verification is performed to determine that the reported volume of CO<sub>2</sub> Removal has taken place, and the Production Facility conforms with the requirements of the Puro Standard General Rules and applicable Methodology.

2.3.2.4 The Auditor verifies that the Output Report corresponds to the actual Output during the Monitoring Period according to the Methodology. The Output Auditor submits their evaluation on the performance of the CO<sub>2</sub> Removal activity in the Output Audit Report and Output Audit Statement.

2.3.2.5 The Issuing Body publishes the Output Audit Report and Statement in the Registry.

### 2.3.3 Output Review

2.3.3.1 Output Review is conducted by the Issuing Body. It involves reviewing the Output Audit Report and the documentation submitted by the CO<sub>2</sub> Removal Supplier for the Output Audit.

2.3.3.2 The Output Review of a Production Facility may result in

- i. A successful Output Review.
- ii. An unsuccessful Output Review.

2.3.3.3 With an unsuccessful Production Facility Review outcome, the CO<sub>2</sub> Removal Supplier will have a reasonable opportunity to address the identified non-conformity issues within 30 days and submit once new/revised documentation for a re-review.

2.3.3.4 With a successful Output Review outcome

- i. CO<sub>2</sub> Removal Supplier can move to CORC Issuance.
- ii. Output Audit Report and Statement is made public in the Registry.
- iii. Production Facility documentation is made public in the Registry; including but not limited to:
  - a. Project Description
  - b. Verified Net CO<sub>2</sub> Removal quantification for the Monitoring Period as defined in CORC quantification of applicable Methodology.

### 2.3.4 Combining Production Facility Audit and Output Audit

2.3.4.1 The Issuing Body may choose to combine design validation and performance verification. The CO<sub>2</sub> Removal Supplier will in their first submission include all documents required for Production Facility Audit

and Output Audit. The Auditor may consider the validation and verification concurrently and submit the Auditor's evaluation on the conformity and performance in a combined Production Facility and Output Audit Report.

2.3.4.2 The Issuing Body will conduct a combined Production Facility and Output Review covering both processes as described above.

## 2.4 TIMESCALES AND FREQUENCY

2.4.1 The first date of the first Monitoring Period marks the beginning of a Crediting Period. The Crediting Period lasts 5 years unless otherwise stated in the applicable Methodology. The Crediting Period can be renewed twice by successfully undergoing a new Production Facility Audit. The Crediting Period shall not overlap with another Crediting Period.

2.4.2 An Output Report shall be submitted to each Production Facility at minimum once every 12 months throughout the Crediting Period. An Output Report may consider Production Facility performance for up to 18 months.

2.4.3 A delay in submitting the Output Report at least once in 12 months shall result in the Production Facility being suspended. Delay in submitting the Output Report beyond 18 months shall result in the Production Facility being deregistered.

2.4.4 Specific time schedules may apply in periods or areas where a pandemic, natural disaster or other conflicts restrict access to the Production Facility site or data.

2.4.5 The Issuing Body has the right to appoint an Auditor to perform an ad-hoc Production Facility Audit and/or Output Audit Report. The CO<sub>2</sub> Removal Supplier is in such a case responsible for providing the Auditor with documentation and access rights necessary to perform the Audit.

## 3 REGISTRY TRANSACTIONS

### 3.1 PRODUCTION FACILITY REGISTRATION AND DEREGISTRATION

3.1.1 CORCs (CO<sub>2</sub> Removal Certificates) are uniquely identified in the Registry and each CORC's chain of custody is tracked from when the CORC is issued through to its Transfer or Retirement. All Transactions are subject to service fees as defined in the Platform Agreement.

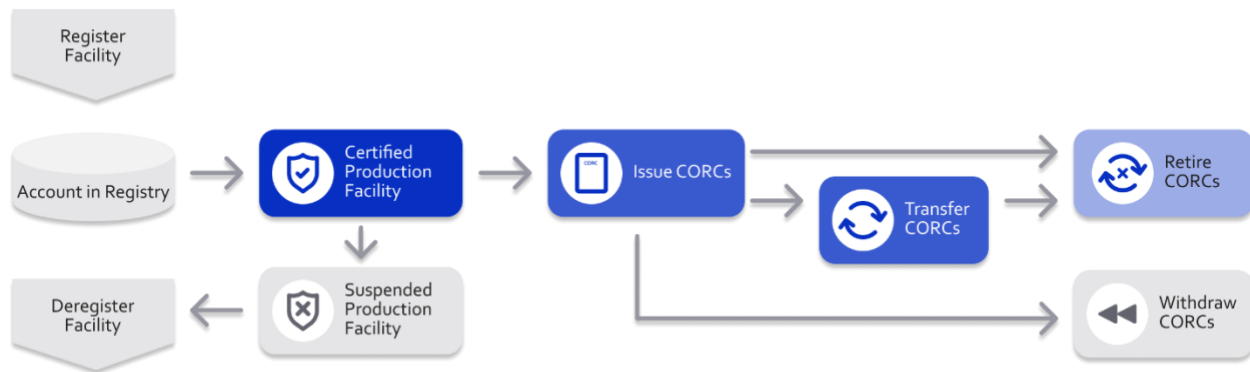


Figure 3: Overview of registry transactions

3.1.2 The Production Facility registration is initiated in the Registry by the CO<sub>2</sub> Removal Supplier by submitting the Production Facility registration details to the Issuing Body.

3.1.2.1 The Production Facility registration details include:

- i. CO<sub>2</sub> Removal Supplier registering the Production Facility.
- ii. CO<sub>2</sub> Removal Supplier's right to represent the Production Facility and to be the entity that receives the CORCs.
- iii. Registry Account associated with the Production Facility.
- iv. Name of the Production Facility.
- v. Location of the Production Facility.
- vi. Host country and sector of the Production Facility.
- vii. Applicable Methodology referenced in the Audit and the Review processes.
- viii. Specific information as may be specified in the applicable Methodology.
- ix. Proof of ownership of the Production Facility, and/or legal rights to the CORCs.

3.1.3 A CO<sub>2</sub> Removal Supplier is responsible for informing the Issuing Body without any delay on changes in the Production Facility, which might impact the Attributes of issued CORCs or compromise Environmental and Social Safeguards or the future issuance of CORCs.

3.1.3.1 The Issuing Body may suspend the Production Facility due to material changes and a new Production Facility Audit may need to be performed.

3.1.4 The Issuing Body has the right to suspend the Transactions related to a Production Facility and the associated CORCs. Delay or failure to provide reports may lead to suspension until the matter has been remedied.

3.1.5. Where a CO<sub>2</sub> Removal Supplier seeks to deregister a Production Facility from the Registry it may do so by notifying the Issuing Body. The deregistration is activated within a calendar month of the receipt of

this information by the Issuing Body. The CO<sub>2</sub> Removal Supplier shall receive a document of deregistration from the Registry stating from which date the CO<sub>2</sub> Removal activity is no longer certified under the Puro Standard. In such a case, the CO<sub>2</sub> Removal Supplier is responsible for completing any Audits still due and to pay any fees still due.

## 3.2 CORC ISSUANCE

3.2.1. CORCs are only issued to a certified Production Facility associated to a Registry Account held by an approved Account Holder.

3.2.2 CORCs are always issued based on an Output Audit Report for a specified Monitoring Period for a certified Production Facility quantifying the Net CO<sub>2</sub> Removal. The CO<sub>2</sub> removal and the greenhouse gas emissions are quantified using the rules defined in the corresponding Methodology.

3.2.3. CORCs are issued to certified Production Facilities that have been verified to meet the requirements set in Chapter 7 and in the applicable Methodology.

3.2.4. A CORC represents a volume of 1 (one) metric ton of Net Carbon Dioxide Removal stored Long Term.

3.2.4.1 Each CORC shall specify the following Attributes:

- i. Unique identifier.
- ii. Issuance Date.
- iii. CO<sub>2</sub> Removal Methodology and its version.
- iv. CORC<sub>100+</sub> or CORC<sub>1000+</sub> label to communicate the storage durability of the Methodology.
- v. Production Facility identifier, name, and location of the Production Facility.
- vi. Host country and sector of the Production Facility.
- vii. Monitoring Period first and last dates of the Output Report.
- viii. Specific information as may be specified in the corresponding Methodology.
- ix. Other Attributes as required.

3.2.5. To initiate the process of CORC Issuance, a CO<sub>2</sub> Removal Supplier with a certified Production Facility sends an Output Report to the Issuing Body and the Issuing Body initiates the performance verification procedure for the Monitoring Period as specified in Chapter 2.3.

3.2.6 With a successful performance verification and Output Review outcome the Issuing Body issues the amount of CORCs corresponding to the verified CO<sub>2</sub> Removal volume in the Output Audit Report to the CO<sub>2</sub> Removal Supplier's Account associated with the Production Facility.

3.2.7. CORCs are issued as integer digits. Any leftover, representing a volume less than 1 metric ton, is recorded, and added into the Issuance volume of the following Issuance.

## 3.3 CORC RETIREMENT

3.3.1 The Retirement removes the CORC from circulation and entitles the Beneficiary exclusive ownership of the quantity and other Attributes of the CO<sub>2</sub> Removal represented in the CORC.

3.3.2. An Account Holder may retire CORCs for their own or another Beneficiary's benefit.

3.3.3. Account Holder, a party authorized by the Account Holder, or a party represented by the Account Holder initiates the Retirement by submitting a Retirement request to the Issuing Body.

3.3.3.1 The Retirement request shall specify the amount of CORCs to be retired along with the following Retirement information:

- i. Beneficiary entity name.
- ii. Use purpose: identification of the purpose of the Retirement.
- iii. Use period: identification of the period of the Retirement.
- iv. Use Country: identification of the country of the Retirement.

3.3.4. The Retirement Request is executed by the Registry Operator and removed from circulation. The Retirement information is made available publicly through the Registry.

3.3.5 The Issuing Body may alter the details of Retirement to rectify errors provided that the alteration does not change the climate impact of the CORC. The alteration request must be submitted in writing within two days from Retirement confirmation.

## 3.4 CORC WITHDRAWAL

3.4.1. To maintain the accuracy and veracity of the System, the Issuing Body has the right to withdraw CORCs from an Account Holder's Account.

3.4.1.1 This can take place in case:

- i. An error has occurred in the issuing, transferring or other processing of the CORC.
- ii. Due to a material breach of the Puro Standard.
- iii. To balance the accounts in case of CO<sub>2</sub> Removal reversals according to Chapter 6.7 procedures.

3.4.2. The Issuing Body is entitled to alter the details of CORCs to rectify any errors that have occurred in the Issuance or Transfer process.

## 3.5 PREVENTING DOUBLE COUNTING

3.5.1 The aim of using the Registry to track CO<sub>2</sub> Removal activity and CORCs (CO<sub>2</sub> Removal Certificates) is to prevent the possibility of double counting. All processes aim to exclude the possibility of more than one CORC being issued for the same volume of CO<sub>2</sub> Removal and that the CORC issued represents the sole proof of ownership of the CORC and associated CORC Attributes.

3.5.1.1 The procedures in place prevent:

- i. Double registration within the Registry.
- ii. Double registration outside of the Registry for CO<sub>2</sub> Removal activities.
- iii. Double issuance of CORCs where another program has issued credits for the same project activity during the same period.
- iv. Double retirement and use by two Beneficiaries and being counted towards achieving two mitigation targets.
- v. Double use within the supply chain.
- vi. Double counting in the context of Article 6 of the Paris Agreement.

3.5.2 Preventing double registration within the Registry.

3.5.2.1 The Issuing Body shall control that the same Account Holder shall not register the same CO<sub>2</sub> Removal activity twice and that two Account Holders shall not register the same CO<sub>2</sub> Removal activity in the same location for the same Crediting Period.

3.5.2.2 The Registry logs proof of ownership of the Production Facility to be certified, and legal rights to the CORCs resulting from the activity of all parties in the supply chain.

3.5.2.3 All Account Holders need to be registered, need to have signed the Platform Agreement and are obliged to follow the procedures as defined in the Platform Agreement.

3.5.3 Preventing double registration outside of the Registry.

3.5.3.1 The Issuing Body shall control that the same Account Holder has not registered the same CO<sub>2</sub> Removal activity for the same period with another carbon-crediting program. The same CO<sub>2</sub> Removal activity can register with another carbon crediting program for a different Monitoring period.

3.5.3.2 The Registry requires submitting of prior registrations of the same CO<sub>2</sub> Removal activity with other crediting programs. The CO<sub>2</sub> Removal Supplier registering a CO<sub>2</sub> Removal activity shall clearly state if the same activity has been registered with another carbon-crediting program for another Monitoring period. The CO<sub>2</sub> Removal Supplier shall also state if it has applied to be registered with another carbon-crediting program but has been rejected and the reason for rejection.

3.5.3.3 In the case of a CO<sub>2</sub> Removal activity transferring from another crediting program to the Registry, the Monitoring period shall not overlap. The CO<sub>2</sub> Removal Supplier shall provide the document of deregistration from the other carbon-crediting program stating from which date the CO<sub>2</sub> Removal activity is no longer credited under the other carbon-crediting program. The CO<sub>2</sub> Removal Output produced after the date of registration in the Registry and the corresponding Monitoring period shall be credited under the Puro Standard.

3.5.3.4 When the CO<sub>2</sub> Removal activity is deregistered from the Registry, and transfer to another carbon-crediting program, the CO<sub>2</sub> Removal Supplier shall receive a document of deregistration from the Registry stating from which date the CO<sub>2</sub> Removal activity is no longer certified under the Puro Standard.

3.5.3.5 The Registry does not allow the transfer of CORCs outside of the Registry.

3.5.3.6 The Registry does allow simultaneous registration with other crediting programs that are crediting activities other than CO<sub>2</sub> Removals, such as biodiversity credits, or renewable energy credits. In such cases, the Registry requires disclosure of simultaneous registrations, when possible.

3.5.4 Preventing double Issuance.

3.5.4.1 Double issuance of CORCs where another program has issued credits for the same project activity and the same period is prevented by as described above in section 3.5.2.

3.5.5 Preventing double retirement and use.

3.5.5.1 The CORCs are issued in the Registry, where the full lifecycle is tracked from Issuance to Retirement, ensuring avoidance of double Retirement and use. Each CORC is uniquely identified with a serial number, and the Retirements are published with Beneficiary and the Retirement purpose to align with the registry column title in the Registry. A CORC cannot be retired more than once in the Registry.

3.5.6 Preventing double use within the supply chain.

3.5.6.1 The CO<sub>2</sub> Removal Supplier is responsible for ensuring that double use or double reporting of the CO<sub>2</sub> Removal within the supply chain is prevented by contracts, statements, or other measures. Where a physical product or material stores the removed CO<sub>2</sub>, the product/material shall not be associated with any claims of CO<sub>2</sub> Removal nor other Attributes represented by the CORC, unless the corresponding CORCs have been retired on behalf of this physical material/product.

### 3.5.7 Preventing double counting in the context of Paris Agreement Article 6.

3.5.7.1 Article 6 of the Paris Agreement enables international cooperation between signatory countries to the Paris Agreement so the world can achieve the goal of net-zero emissions by the second half of this century. CORCs used in the context of Article 6 mechanism shall meet the relevant requirements relating to double counting and corresponding adjustments. The public or private entities that wish to register the CO2 Removal activity as an Article 6 activity shall follow the procedures in the document *Article 6 Procedures* which defines the procedures for the use of CORCs for Nationally Determined Contributions (NDCs) and other international mitigation purposes under Article 6 of the Paris Agreement.

## 4 CERTIFICATE TRADING AND TRANSFER OF OWNERSHIP

### 4.1 CERTIFICATE TRADING

4.1.1 The Account Holder may trade CORCs in any venue provided that the Account Holder reports all such sales immediately to the Registry Operator and pays the associated service fee for the Transfer of ownership.

### 4.2 TRANSFER OF OWNERSHIP

4.2.1 To initiate the Transfer of ownership, an Account Holder, a party authorized by the Account Holder, or a party represented by the Account Holder submits a trade report to the Registry Operator.

4.2.1.1 A trade report includes the following information:

- i. Account number to transfer the CORCs from.
- ii. Account number to transfer the CORCs to.
- iii. Number of CORCs, Type of CORCs and vintage
- iv. Trade Value (CORC Unit Price and Currency).
- v. Other information may be specified by the parties.

4.2.2 When the Registry Operator receives a trade report from the selling Account Holder, the Registry Operator executes the Transfer of CORCs between the accounts as defined in the trade report.

## 5 REPORTS FROM THE REGISTRY

### 5.1 PUBLIC REPORTS

5.1.1 Audit Statements, Audit Reports, registrations, and project descriptions are publicly available from the Registry. The CO<sub>2</sub> Removal Supplier may request to redact confidential or personal information subject to Issuing Body approval.

5.1.2 Issuances and Retirements are available in the Registry with details about the Beneficiary, the Vintage of the CORC and the Production Facility of the CO<sub>2</sub> Removal Supplier. The data is updated at minimum daily. The Beneficiary can request a reasonable time delay, no longer than 12 months, in publishing Beneficiary and Retirement purpose.

### 5.2 REPORTS AVAILABLE TO AN ACCOUNT HOLDER

5.2.1 Account statement of the Account(s) owned by the requesting Account Holder

5.2.2 Retirement statement, which includes the details of the Retirement Transaction.



## 6 REQUIREMENTS FOR CO<sub>2</sub> REMOVAL SUPPLIERS

### 6.1 QUANTIFICATION OF CARBON REMOVAL

- 6.1.1 The CO<sub>2</sub> Removal Supplier shall determine the Net CO<sub>2</sub> Removal volume as specified in the applicable Methodology.
- 6.1.2 The Net CO<sub>2</sub> Removal volume is determined by subtracting from the gross CO<sub>2</sub> Removal volume any greenhouse gas emissions generated directly or indirectly by the Production Facility following the rules specified in the applicable Methodology and in the *Life Cycle Assessment Guidance*.
- 6.1.3 The CO<sub>2</sub> Removal Supplier shall calculate the climate impact using GWP<sub>100</sub> factors according to the latest *IPCC Assessment Report*<sup>1</sup>, unless otherwise specified in the applicable Methodology.

### 6.2 LEAKAGE (INDIRECT EMISSIONS)

- 6.2.1 The CO<sub>2</sub> Removal Supplier must evaluate leakage following the requirements defined in the applicable Methodology.
- 6.2.2 Leakage is the concept of an increase or decrease in greenhouse gas emissions or removals, outside of the system boundaries of the activity (see Definitions).
- 6.2.3 Methodologies in the Puro Standard shall first identify and present the potential sources of Leakage that are relevant to consider for the CO<sub>2</sub> Removal pathways included in the scope of the Methodology.
- 6.2.4 Methodologies in the Puro Standard shall then have requirements designed to avoid, minimize, or mitigate the effects of Leakage.
- 6.2.5 Methodologies in the Puro Standard shall finally have requirements to quantify any remaining Leakage that was not possible to avoid, minimize or mitigate. The quantification of the remaining Leakage shall be robust and conservative.
- 6.2.6 Methodologies in the Puro Standard shall consider different categories of leakage as defined in the Core Carbon Principles<sup>2</sup>, namely i) ecological leakage, ii) market leakage, iii) activity-shifting leakage, and iv) upstream/downstream emissions, In most situations, leakage related to upstream/downstream emissions shall not be considered Leakage but instead be included as part of the direct emissions of the activity via the use of adequate life-cycle emission factors that include upstream and downstream emissions.
- 6.2.7 Methodologies in the Puro Standard shall distinguish between positive and negative Leakage effects, which refer respectively to a situation where Leakage leads to a reduction in climate change impact (positive Leakage) or an increase in climate change impact (negative Leakage). Positive Leakage effects are dismissed from the quantification of CORCs but may be presented as co-benefits.
- 6.2.8 Methodologies in the Puro Standard shall consider net Leakage effects which may occur in the situation where, for a single Leakage effect (e.g. energy-related activity shifting), the Leakage effect is associated with both an increase and decrease in emissions. In that case, the net effect shall be considered and result in either positive or negative Leakage. Only net negative Leakage

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<sup>1</sup> IPCC Sixth Assessment Report <https://www.ipcc.ch/assessment-report/ar6/>

<sup>2</sup> ICVCM CCP Definitions <https://icvcm.org/wp-content/uploads/2023/07/CCP-Section-5-R2-FINAL-26Jul23.pdf>

effects shall be included in the quantification of CORCs, i.e. leading to a reduction in the amount of CORCs that can be claimed. Net positive Leakage effects are dismissed from the quantification of CORCs but may be presented as co-benefits.

### 6.3 UNCERTAINTY AND CONSERVATIVENESS

- 6.3.1 The CO<sub>2</sub> Removal Supplier must use conservative assumptions, values, and procedures to ensure that the CO<sub>2</sub> Removal issued as CORCs is not overstated.
- 6.3.2 The CO<sub>2</sub> Removal Supplier shall estimate uncertainty following the requirements defined in the applicable Methodology. The uncertainty estimation shall address all material sources of uncertainty specified in the applicable Methodology.
- 6.3.3 Methodologies in the Puro Standard shall include requirements on the identification and reporting of material sources of uncertainty.
- 6.3.4 Methodologies in the Puro Standard shall identify common material sources of uncertainty relevant for the CO<sub>2</sub> Removal pathways included in the scope of the Methodology.
- 6.3.5 Methodologies in the Puro Standard shall consider all relevant material sources of uncertainty. For example, such uncertainties might arise from:
- i. Assumptions (e.g., baseline scenario).
  - ii. Estimation equations or models.
  - iii. Parameters (e.g., representativeness of default values).
  - iv. Measurements (e.g., the accuracy of measurement methods).
  - v. Other factors which may have a material effect on the CO<sub>2</sub> Removal quantification.
- 6.3.6 Methodologies in the Puro Standard shall include requirements and guidelines on the assessment and documentation of uncertainty in accordance with the following guidelines:
- i. The direct quantification of uncertainties (e.g. via statistical methods or calibration records) is preferred where feasible. Uncertainty estimations from external sources (such as peer-reviewed scientific literature or local regulations) may be utilized when necessary.
  - ii. The methods utilized to quantify uncertainty in the Puro Standard Methodologies shall be conservative and scientifically justifiable.

### 6.4 ENVIRONMENTAL AND SOCIAL SAFEGUARDS

- 6.4.1 A CO<sub>2</sub> Removal Supplier shall be able to demonstrate Environmental and Social Safeguards and that the Production Facility activities<sup>3</sup> do no net harm to the surrounding natural environment or local communities.
- 6.4.1.1 Adhere to the following aspects as described by the Integrity Council for the Voluntary Carbon Market (IC-VCM):

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<sup>3</sup> It shall be noted that the responsibility of the Production Facility operator extends to the imminent environmental and human health related impacts of the use of manufactured products as far as concerned in the Environmental Impact Assessment or environmental permit.

- i. Abide by national and local laws, objectives, programs, and regulations and, where relevant, international conventions and agreements.
- ii. Respect for human rights and avoiding discrimination; abiding by the International Bill of Human Rights and universal instruments ratified by the host country.
- iii. Recognize, respect, and promote the protection of the rights of IPs & LCs (indigenous peoples and local communities) in line with applicable international human rights law, and the United Nations Declaration on the Rights of Indigenous Peoples and International Labor Organization (ILO) Convention 169 on Indigenous and Tribal Peoples.
- iv. Labor rights and working conditions, including prohibiting forced labor, child labor or trafficked persons whether in own operations or employed by third parties, fair treatment of employees, and safe and healthy working conditions.
- v. Providing for equal opportunities in the context of gender; providing equal pay for equal work and protecting against and appropriately responding to violence against women and girls.
- vi. Pollution prevention, including pollutant emissions to air, water, and soil as well as noise and vibration, and generation of waste and release of hazardous materials, chemical pesticides, and fertilizers.
- vii. Avoiding or minimizing adverse impacts to community health and safety.
- viii. Biodiversity conservation and sustainable management of natural resources, including avoiding or minimizing negative impacts on terrestrial and marine biodiversity and ecosystems; protecting the habitats of rare, threatened, and endangered species, including areas needed for habitat connectivity; minimizing soil degradation and soil erosion and minimizing water consumption and stress. The CO<sub>2</sub> Removal Supplier shall not convert natural forests or high conservation value habitats.
- ix. Preserves and protects cultural heritage and cultural and religious sites.
- x. Avoiding forced physical and or economic displacement. If avoidance is not feasible, CO<sub>2</sub> Removal Suppliers shall minimize physical and/or economic displacement. This applies also to any access restrictions to lands, territories, or resources, and any customary rights of local right holders.

6.4.2 When the activity directly or indirectly impacts indigenous peoples or their livelihoods, ancestral knowledge or cultural heritage, the CO<sub>2</sub> Removal supplier shall develop the Production Facility with free, prior, informed consent (FPIC)<sup>4</sup>.

6.4.3 The CO<sub>2</sub> Removal Supplier shall provide documentation<sup>5</sup>, that shall robustly address all material<sup>5</sup> environmental and social impacts, including aspects listed in 6.4.1.1, that could potentially materialize both within and outside the activity boundary and include information on mitigation measures commensurate with the identified risks to minimize and address any negative environmental and/or social impacts.

6.4.3.1 This shall be done through one or several of the following:

- i. Environmental Impact Assessment (EIA).
- ii. Environmental permit.
- iii. Environmental and Social Monitoring Plan that sets out the measures and actions required to monitor and mitigate identified environmental and social risks.

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<sup>4</sup> For more information on FPIC: <https://www.fao.org/indigenous-peoples/our-pillars/fpic/en/>

<sup>5</sup> In the assessment of materiality of negative impacts, CO<sub>2</sub> Removal Suppliers can be guided for example by Global Reporting Initiative (GRI) Universal Standards 3: Material topics, or by European Sustainability Reporting Standards (ESRS) Implementation Guidance (IG 1) on Materiality assessment, currently available as a draft.

- iv. Other documentation, including methodology-specific documentation, approved by the Issuing Body on the analysis and management of the environmental and social impacts.
- 6.4.4 The CO<sub>2</sub> Removal Supplier shall conduct a stakeholder consultation according to regulation by local authorities or following the Puro Standard document *Stakeholder Engagement Requirements*. The CO<sub>2</sub> Removal Supplier shall document the stakeholder consultation execution and its results following the Puro Standard document *Stakeholder Engagement Requirements*.
- 6.4.5 The CO<sub>2</sub> Removal Supplier shall have a policy in place to allow stakeholders to submit continuous feedback throughout the operation of the Production Facility.

## 6.5 ADDITIONALITY

- 6.5.1 A CO<sub>2</sub> Removal Supplier must demonstrate that the project is not required by existing laws, regulations, or other binding obligations.
- 6.5.2 A CO<sub>2</sub> Removal Supplier shall demonstrate CO<sub>2</sub> additionality to the Baseline, meaning that it is resulting in higher volumes of CO<sub>2</sub> removals than the likely Baseline alternatives. The Baseline shall be project-specific, conservative, and updated for every renewal of a Crediting Period.
- 6.5.3 A CO<sub>2</sub> Removal Supplier shall demonstrate financial additionality, meaning that the project must convincingly show that the CO<sub>2</sub> removals are a result of carbon finance.
- 6.5.4 To demonstrate additionality, a CO<sub>2</sub> removal Supplier shall follow Puro.earth *Additionality Assessment Requirements*.
- 6.5.5 The Puro Standard may develop standardized approaches to facilitate the determination of a Baseline and additionality. The standardized approach must follow the process of developing standardized approaches as defined in the Core Carbon Principles<sup>6</sup>. Production Facilities meeting the criteria of the standardized approach are allowed to use it to demonstrate additionality.

## 6.6 POSITIVE SDG IMPACTS

- 6.6.1 A CO<sub>2</sub> Removal Supplier shall provide qualitative descriptions of expected positive impacts on Sustainable Development Goals (SDG) before the Production Facility Audit.
- 6.6.2 A CO<sub>2</sub> Removal Supplier shall provide qualitative and quantitative evidence of positive impacts on SDGs for the Output Audit based on *SDG Assessment Requirements* provided by the Issuing Body.
- 6.6.3 A CO<sub>2</sub> Removal Supplier shall also provide information on how the mitigation activity is consistent with the SDG objectives of the host country, where the SDG objectives are relevant, and such is feasible.

## 6.7 PERMANENCE AND RISK OF REVERSAL

- 6.7.1 The ICVCM categories<sup>7</sup> of CO<sub>2</sub> Removal activities that are certified under the Puro Standard sequester carbon to highly durable storages. Once CO<sub>2</sub> Removal is issued as CORC, i.e. has been removed to a certified storage and quantified according to the Methodology, the risk of re-emission is very low.<sup>8</sup>
- 6.7.2 Reversal is an event which cancels, entirely or in part, the effects of an issued CORC.
- 6.7.3 Methodologies in the Puro Standard shall include a Reversal risk estimation of an issued CORC.

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<sup>6</sup> CCP Criterion 8.8 <https://icvcm.org/wp-content/uploads/2023/07/CCP-Section-4-R2-FINAL-26Jul23.pdf>

<sup>7</sup> CCP Criterion 9.1 <https://icvcm.org/wp-content/uploads/2023/07/CCP-Section-4-R2-FINAL-26Jul23.pdf>

<sup>8</sup> IPCC special report on CCS [https://www.ipcc.ch/site/assets/uploads/2018/03/srccs\\_chapter5-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/03/srccs_chapter5-1.pdf)

- 6.7.3.1 The risk estimation shall be quantitative, and the Overall Risk Effect shall be given in percentage of the Output volume. The Reversal risk estimation shall consider all material risks arising from:
- i. Nature-induced risks (e.g., flora, fauna, or climate conditions).
  - ii. Human-induced risks (e.g., design and construction faults, operational risks).
  - iii. Geopolitical risks (e.g., potential effects of the legal and political environment).
  - iv. Any additional factors mentioned in the applicable Methodology.
- 6.7.3.2 The risk estimation shall include an estimation of risk impact and risk likelihood of every material risk. The methods utilized for estimation must be scientifically justifiable and detailed in the Reversal risk estimation. The estimation must include a description of the methods and values used to estimate impacts and likelihoods, such as statistical methods, peer-reviewed scientific literature or local regulations and guidelines.
- 6.7.4 Where material risks are identified, the Methodologies in the Puro Standard shall include obligations on CO<sub>2</sub> Removal Suppliers for risk identification, preemptive risk mitigation, management, and reporting practices. The CO<sub>2</sub> Removal Supplier shall by undertaking the obligations ensure that the issued CORCs remain firmly and durably stored for the long term and shall provide adequate assurance of its ability to perform the obligations defined in the validated Monitoring Plan
- If due to the failure of the CO<sub>2</sub> Removal Supplier to perform these obligations there is a Reversal event, CO<sub>2</sub> Removal Supplier is liable for it and is obliged to provide compensation.
- 6.7.4.1 If the CO<sub>2</sub> Removal detects a Reversal event, the CO<sub>2</sub> Removal Supplier shall without delay act to:
- i. Prevent further reversal from occurring.
  - ii. Notify the Issuing Body of any the Reversal event within 5 days of detection.
  - iii. Determine the failure that caused the Reversal event.
  - iv. Calculate the Reversal quantify (in tCO<sub>2</sub>e).
- 6.7.5 The Issuing Body reviews the notification, failure, and Reversal quantity. The Issuing Body may seek clarifications from an Output Auditor to form the final opinion.
- 6.7.5.1 The issuing Body subtracts Reversal quantity from the Output volume for the Monitoring Period where the Reversals occurred, or the subsequent Monitoring Period.
- 6.7.5.2 The issuing Body withdraws and invalidates CORCs from the Account of the CO<sub>2</sub> Removal Supplier equal to Reversal quantity.
- 6.7.5.3 The CO<sub>2</sub> Removal Supplier shall deposit CORCs of the same type or, if unavailable, of comparable permanence to the Account of the CO<sub>2</sub> Removal Supplier equal to Reversal quantity for the Issuing Body to withdraw.

## DEFINITIONS

**Account** – account in the Registry in which CORCs held by Account Holders are stored.

**Account Holder** – Legal entity who has signed a Platform Agreement and who thereby possesses an Account in the System and rights to execute specified Transactions (Retirement, Transfer).

**Advisory Board** – A governing body of these Puro Standard General Rules and the Methodologies.

**Attribute** – A characteristic of Net Carbon Dioxide removal, which is recorded in the CORC, such as where, when and by which Methodology the CO<sub>2</sub> Removal was achieved.

**Auditor** – An Independent 3<sup>rd</sup> party verifier appointed to perform Production Facility Audit and/or Output Audits

**Baseline** - The sequestration of greenhouse gases (natural or anthropogenic) that have occurred prior to the introduction of the activity accounted over a period. This historical data point acts as a counterfactual benchmark to evaluate the success of the activity to remove additional greenhouse gases and sequester them for the Long-Term.

**Beneficiary** - the entity on whose behalf the carbon credit was retired. The Beneficiary is the sole owner of the Attributes represented by the CORCs, which are Retired for its benefit. Examples of beneficiaries might include, but are not limited to, companies, public entities, private or public organizations.

**CO<sub>2</sub> Removal** – Carbon dioxide removal (CDR)<sup>9</sup> is an anthropogenic activity involving removal of CO<sub>2</sub> from the atmosphere and durably storing it in geological, terrestrial, or ocean reservoirs, or in products. It includes anthropogenic enhancement of biological, geochemical, or chemical CO<sub>2</sub> sinks, but excludes natural CO<sub>2</sub> uptake not directly caused by human activities.

**CO<sub>2</sub> Removal Supplier** - An Account Holder registering a Production Facility capable of CO<sub>2</sub> Removal according to the applicable Methodology. An Account Holder can be such as but not limited to project owner, project developer, project participant, facility owner, facility operator. A CO<sub>2</sub> Removal Supplier represents the mitigation activity participants needed to perform the CO<sub>2</sub> Removal end to end.

**CO<sub>2</sub> Removal Certificate (CORC)** - CO<sub>2</sub> Removal Certificate is an electronic document, which records the Attributes of CO<sub>2</sub> Removal issued to certified Production Facilities. Each CORC represents a Net Carbon Dioxide Removal volume of one (1) metric ton of Long-Term CO<sub>2</sub> Removal<sup>++</sup>.

**Commitment Date** - the calendar date on which the CO<sub>2</sub> removal Supplier (the activity proponent) committed to implementing the CO<sub>2</sub> Removal activity (e.g., the date when contracts for the purchase or installation of equipment required for the mitigation activity were signed). In the case where a mitigation activity does not involve capital expenditure, it refers to the date when the first physical actions were taken to implement the mitigation activity. (Adapted from Start Date as defined in ICVCM CCP<sup>10</sup>)

**CORC100+, CORC1000+** - certificate labels used to communicate storage durability in years for different Methodologies. The label is for information only and does not express the exact duration that the carbon is retained in the storage.

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<sup>9</sup> IPCC AR6 WGIII [https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC\\_AR6\\_WGIII\\_TechnicalSummary.pdf](https://www.ipcc.ch/report/ar6/wg3/downloads/report/IPCC_AR6_WGIII_TechnicalSummary.pdf)

<sup>10</sup> ICVCM CCP Definitions <https://icvcm.org/wp-content/uploads/2023/07/CCP-Section-5-R2-FINAL-26Jul23.pdf>

**Country of Origin** – Host country. The country of location of the Production Facility generating Output for which the CORC was issued.

**Crediting Period** - The period in which verified CO<sub>2</sub> removal Output attributable to a certified Production Facility can result in the issuance of CO<sub>2</sub> Removal certificates (CORCs).

**Environmental and Social Safeguards** – Mechanisms to identify, mitigate and prevent adverse environmental and social impacts resulting from implementation of CO<sub>2</sub> removal.

**GWP<sub>100</sub>** – Global Warming Potential (GWP) is a metric used to compare the potential warming effect of different greenhouse gases emitted to the atmosphere over a given time horizon. GWPs are commonly given for 20-year, 100-year and 500-year time horizons<sup>11</sup>. In life cycle assessment, GWPs can be used to calculate the climate impact of a system expressed in carbon dioxide equivalent (CO<sub>2</sub>-eq). These values have been updated in different iterations of the IPCC assessment report and care must be taken in defining which version is being used.

**Issuance** – Transaction performed by the Issuing Body to create CORCs based on the Output from registered Production Facilities.

**Issuance Date** - The date of Issuance recorded in the CORC.

**Issuing Body** - The Body responsible for Issuing CORCs, operating the System and overseeing the reliability of the System. The Issuing Body of the System is Puro.earth Oy.

**Leakage** - an indirect effect associated with a CO<sub>2</sub> Removal activity and dependent on the selected Baseline, that may lead to an increase or decrease in greenhouse gas emissions or removals, outside of the system boundaries of the activity, if not avoided or mitigated. It is also called indirect emissions in the Net CO<sub>2</sub> Removal quantification.

**Long-term duration** - Long-term refers to the duration of carbon storage and is defined as a minimum length of 100 years.

**Methodology** – Methodology provides eligibility requirements to verify the compliance of the CO<sub>2</sub> Removal activity. A Methodology provides robust CO<sub>2</sub> Removal quantification rules specific to each carbon removal pathway. It specifies the activity boundaries, detailed calculation formulas and the proof needed for the activity performance. A Methodology may be revised. A List of the valid Methodologies is available on the Puro.earth website.

**Monitoring Period** – the time between the first date and last date of the Output Report.

**Monitoring Plan** – a summary of the monitoring procedures and their responsible parties, which are in place at the Production Facility to ensure i) performance monitoring, ii) the environmental and social safeguards, and iii) monitoring the risk of reversal.

**Net CO<sub>2</sub> Removal (Net CDR)** – 1 metric ton of CO<sub>2</sub> removed from the atmosphere net of any life-cycle process emissions and intended to be stored for the Long-Term.

**Output** – Volume of CO<sub>2</sub> Removal within a certain Monitoring Period which is eligible to receive CORCs. CORCs are always Issued for Net Carbon Dioxide Removal in the production process, which means that the total volume of Output is determined by subtracting the CO<sub>2</sub> emissions volume generated directly or indirectly due to the production process or materials used according to the applicable Methodology from the CO<sub>2</sub> Removal volume.

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<sup>11</sup> IPCC Sixth Assessment Report <https://www.ipcc.ch/assessment-report/ar6/>



**Output Report** – The CO<sub>2</sub> Removal Supplier reports the Output of a Production Facility periodically to the Issuing Body by submitting an Output Report. An Output Report can be generated manually or automatically.

**Output Audit** – Audit performed by a 3<sup>rd</sup> party to verify the Output of CO<sub>2</sub> Removal of that Monitoring Period from a Production Facility according to Methodology.

**Output Audit Report** – A report generated by the Output Auditor based on the Output Audit.

**Output Audit Statement** – A statement published by the Issuing Body about the outcome of an Output Audit.

**Platform Agreement** – A contract made between the System and the Account Holder.

**Production Facility** – A facility capable of CO<sub>2</sub> Removal according to one or several Methodologies.

**Production Facility Audit** – Audit performed by a 3<sup>rd</sup> party to validate the eligibility of a Production Facility according to the relevant Methodology.

**Production Facility Audit Report** – A report generated by the Auditor based on the Production Facility Audit.

**Production Facility Audit Statement** – A statement published by the Issuing Body about the outcome of a Production Facility Audit.

**Puro Standard** – Standard defining the rules for the System, the eligibility requirements for CO<sub>2</sub> Removal Suppliers and quantification rules for the number of CORCs to be issued.

**Registry** – is the system which tracks issuances, transfers, and retirements of CORCs.

**Registry Operator** – Body responsible for the technical operation of the Registry. The Registry Operator of the System is Puro.earth Oy.

**Removal** – Method for absorbing CO<sub>2</sub> from the atmosphere and keeping it stored for the Long-Term. Removal Methods involve capture, conversion of CO<sub>2</sub> to a stable, durable format, and Long-Term storage.

**Retirement** – Retirement of a CORC from circulation by realizing its value and making the Beneficiary of the Retirement the sole owner of the CORC and its Attributes.

**Reversal** – an event which cancels, entirely or in part, the effects of an issued CORC. Reversal is an unaccounted-for event resulting in a situation where at least a part of the removed, quantified and certified carbon represented as a CORC is either released back into the atmosphere (re-emission, loss) or can no longer be considered safely and durably stored for a Long-Term. Reversal is not the phenomenon of degradation, for example, decay of biochar in soil over time, or downstream losses in rivers / ocean in the context of enhanced rock weathering. Those phenomena are included in the Methodology and accounted for in the carbon accounting of the durable storage before issuing the CORC.

**System** – A certification scheme operating under the Puro Standard and in the Registry. It is managed by the Issuing Body and the Registry Operator.

**Trade Value** – The total monetary value of a trade of CORCs between the seller and the buyer. Trade Value = trade volume \* trade price per CORC.

**Transaction** – Processing of CORCs in the Registry. Transactions include Issuance, Transfer, Retirement, and Withdrawal.



**Transfer** – The transfer of CORC from one Account Holder to another

**Vintage** – The calendar year in which the Carbon Removal occurred. If carbon Removal occurred across multiple years, the latest year is determined as Vintage.

**Withdrawal** – Transaction performed by the Issuing Body to invalidate a CORC.

## REFERENCES

### Standard Requirements

[1] *Validation and Verification Requirements.*

[2] *Methodology Development Requirements.*

[3] *Article 6 Procedures.*

[4] *Stakeholder Engagement Requirements.*

[5] *Additionality Assessment Requirements.*

[6] *SDG Assessment Requirements.*

### Guidance Documents

[1] *Life Cycle Assessment Guidance for Suppliers.*

## APPENDICES

## DOCUMENT HISTORY

The new version of the document is effective on Issue Date.

Version	Issue Date	Comment
v1.0	17 April 2019	Initial version elaborated with List of Signatories and published on Puro.earth website on the launch date of Puro CO <sub>2</sub> removal marketplace.
V1.1	13 June 2019	Update to annex C and F - Annex C. Wooden Building element methodology modified to also incorporate biomass-based insulation materials - Annex F. List of signatories included confidentially (not changed)
V1.2	08 October 2019	Updates <ul style="list-style-type: none"> <li>Chapter 3.2.4: CORCs may be issued for 18 months old production (previously 12 months)</li> <li>Chapter 3.3: editorial changes.</li> <li>Chapter 3.4: Pre-purchase of Certificates (CORCs).</li> <li>Chapter 6.4: Aim to use CORC income for growth.</li> </ul>
V1.3	06 December 2019	Updates <ul style="list-style-type: none"> <li>Chapter 3.3: Certificate auctioning (changes from 48h blind to 96h half-blind).</li> <li>Chapter 3.4: Pre-purchase of Certificates (changes due to action mechanism update).</li> <li>Chapter 3.5 Certificate online purchase (added).</li> <li>Chapter 6.2: CORCs issued in the Experiment phase will expire. normally 12 months after the Issuance date</li> </ul>
V1.4	April 2020	Updates <ul style="list-style-type: none"> <li>Chapter 3.7 and 6.2: Extension of the expiry date by 6 months.</li> <li>Chapter 3.5.6: Online shop closed for 3 hours before and after the auction.</li> <li>Chapter 3.5: Possibility to select removal method in the online shop.</li> <li>Numbering of subparagraphs in Chapter 1.5. and Annex A,B,C.</li> </ul>
V2.0	June 2020	<ul style="list-style-type: none"> <li>Chapter 3.1: Settlement is no longer tied to auctions.</li> <li>Chapter 3.4: Purchase through Certificate Listing Service enabled.</li> <li>Chapter 3.4: Pre-Purchase transactions enabled outside auctions.</li> <li>Chapter 3.4.3: Transfer Request added to Pre-purchase agreement process.</li> <li>Chapter 4.3: Sale of CORCs enabled in external marketplaces.</li> <li>Annex A, 1.1.12: requirements for safe handling of biochar.</li> </ul>
V2.1	June 2021	<ul style="list-style-type: none"> <li>Re-structuring: Separate chapters to describe rules for trading (Marketplace) and carbon removal crediting (Registry and Standard).</li> <li>Annex G: Geologically stored Carbon methodology.</li> </ul>

Version	Issue Date	Comment
V2.2	Dec 2021	<ul style="list-style-type: none"> <li>Chapter 1.3: Governance by Advisory Board.</li> <li>Chapter 3.8: Expiry extended.</li> <li>Chapter 5: Issuance and cancellation reports from the Registry.</li> </ul>
V2.3	Jan 2022	<ul style="list-style-type: none"> <li>2.1.2 Environmental and Social Safeguards.</li> <li>2.1.3 Additionality and Baseline.</li> <li>Annex A: Biochar methodology update from 2019 to 2022 to reflect the latest science.</li> </ul>
V2.4	Feb 2022	<ul style="list-style-type: none"> <li>Terminology change: replace cancel/retirement with retire/retirement.</li> <li>5.1 Reporting: Added possibility for the beneficiary to delay (embargo) the publishing of the retirement for maximum 12 months.</li> </ul>
V2.4.1	Feb 2022	<ul style="list-style-type: none"> <li>Annex A: Biochar chapter 4.2 - Spelling correction of <math>C_{org}</math></li> </ul>
V2.5	March 2022	<ul style="list-style-type: none"> <li>Renaming of "Direct Purchase" to "Service Provider Trade" to align to Appendix 1 Terms and Conditions.</li> <li>4.2 Clarification of conditions related to Service Provider Trade.</li> </ul>
V2.5.1	May 2022	<ul style="list-style-type: none"> <li>Minor spelling mistakes corrected.</li> </ul>
V2.6	May 2022	<ul style="list-style-type: none"> <li>Annex H: Woody Biomass Burial.</li> </ul>
V2.6.1	May 2022	<ul style="list-style-type: none"> <li>Page numbers corrected in Table of Contents.</li> </ul>
V2.7	October 2022	<ul style="list-style-type: none"> <li>Annex B: Carbonated Building Material update from 2019 to 2022 to reflect the latest science.</li> <li>Chapter 1.3: Governance rules updated.</li> </ul>
V3.0	9 December 2022	<ul style="list-style-type: none"> <li>CORC minimum durability set to 100 years.</li> <li>Annex C discontinued: CORC issuance on Bio-based Building Materials methodology (storage durability of 50 years) ceased from January 2023.</li> <li>Chapter 1.2.3 added: reference to normative documents.</li> <li>Chapter 2.1.4 added: reference to leakage.</li> <li>Chapter 4 revised: description of "transfer of ownership" of a CORC instructed with a trade report.</li> <li>Chapter 5 revised to allow the publishing of Audit Reports and project description.</li> <li>Enhanced Rock Weathering added as a valid Methodology.</li> <li>All Methodologies and templates published as separate documents in Puro.earth website. Annex A-H removed from this document.</li> </ul>
V3.1	01 June 2023	<ul style="list-style-type: none"> <li>Removed Chapter 3.4 Certificate Expiry as per resolution in Advisory Board on 31 May, 2023. CORCs no longer expire automatically after 5 years.</li> <li>Chapter numbering from Ch 3.5 unchanged for reference.</li> </ul>
V4.0	Approved on 01 February 2024	<ul style="list-style-type: none"> <li>Certification with external methodologies process.</li> <li>Aligning with ISO/CCP terminology for design validation and performance verification.</li> <li>Additional procedures to avoid double counting.</li> <li>Aligning trading of CORCS with Article 6 of the Paris Agreement and CORSIA requirements.</li> <li>Amending Registry requirements to include carbon removal year of production (vintage).</li> <li>Clarifying use of the Platform Agreement.</li> <li>Enhance additionality and leakage requirements.</li> </ul>

Version	Issue Date	Comment
		<ul style="list-style-type: none"> <li>• Rules for reversal events and uncertainty assessment.</li> <li>• Requirements social safeguards: human rights, Indigenous People, labor rights, gender.</li> <li>• Requirements for positive Sustainable Development Goals (SDGs) impacts description.</li> <li>• Ongoing Issuance and Digital Monitoring, Reporting, and Verification.</li> </ul>
4.1	Approved on 03 December 2024	<ul style="list-style-type: none"> <li>• Removed Ongoing Issuance with annual balance audit: Removed Rule 3.2.6.2 and Appendix A.</li> <li>• Contents of project description document clarified in 2.2.4.2 and 2.3.3.4</li> <li>• Monitoring Plan requirements clarified in 6.4.3 and 6.7.4</li> <li>• Rule 6.7.4.1 (previous §6.7.5.1) clarification on time the CO<sub>2</sub> removal supplier must report a reversal event.</li> <li>• Definitions: clarified Removal, added Monitoring Plan.</li> <li>• Changed Puro.earth address to Tammasaarenkatu 1</li> </ul>