



CCUS Industrial Partnership: what next?

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Climate objectives in the EU

- The EU has two **targets**:
 - Achieving **climate neutrality** by **2050**.
 - Cutting **net GHG emissions** by 55% by **2030**.
 - In its Communication on Sustainable Carbon Cycles, the Commission proposes the target of **removing 5 Mt of CO₂** each year by **2030**.
- In this framework, CCUS is expected to play an essential role in
- Delivering global and European net-zero goals at the lowest overall cost
 - Offering decarbonisation solutions

Proposed roadmap by the CCUS Vision WG

CCUS Vision WG suggests a roadmap consisting of three phases:

- By 2032:
 - Reach a **storage capacity of at least 50 Mt CO₂ per year** in the North Sea.
 - **Develop more storage areas**, e.g. the Black Sea, the Adriatic Sea, and South-West France.
- By 2040:
 - Reach a **total storage capacity of at least 300 Mt per year** (half of this is in the North Sea).
 - Reach a **total storage of atmospheric CO₂** (DACCS and BECCS) of **100 Mt per year**.
 - **Ensure access to CO₂ transport and storage** for all major industrial sources in Europe.
 - (Ancillary target for CO₂ removals).
- By 2050:
 - Reach a **total storage capacity of at least 500 Mt per year**.
 - Reach a **total storage of atmospheric CO₂** (DACCS and BECCS) of **200 Mt per year**.
 - **Ensure** a competitive, harmonised, and flexible **regional market for CO₂ transport and storage**.

2022 CCUS Forum discussion

- Reasons why it is necessary to have an industrial partnership
 - De-risking CCUS projects (volume risk; price risk; public acceptance risk).
 - Accelerating the deployment of CCUS technology through a clear mandate, (quantitative) goal(s) and a workplan.
 - Achieving a balance between CCS and CCU.
 - Identifying what is missing in policies and funding.
- Characteristics of an industrial partnership:
 - As open and inclusive as possible
 - Member States, industry, research and academia, NGOs, financial sector, ...
 - Implemented at different level, in order to gain support:
 - EU level → To have an overall coordination of the partnership.
 - Member State level → To efficiently implement the needed tools to achieve the partnership's target(s).
 - Local level → To gain local support.
- From informal dialogues, two main views emerged:
 - Option 1: EU industrial alliance
 - Option 2: Advocacy organisation
 - Option 3: Carbon Storage Obligation (CSO) and units (CSUs)

Option 1: EU industrial alliances

- “Industrial alliances are a tool to facilitate stronger cooperation and joint action between all interested partners” (EC).
 - They are set up by the Commission → They have similar characteristics and structure.
 - **Objective:**
 - ❖ Qualitative or quantitative (aspirational)
 - ❖ Linked to the implementation of EU policies and relevant strategies
 - **Structure:**
 - ❖ General Assembly
 - ❖ (Alliance Forum)
 - ❖ Steering Committee
 - ❖ Working groups based on the value chain
 - ❖ **Membership:** open to a variety of actors and sectors
 - ❖ **Financing:** no public funding involved.
- Are they effective in delivering on their objectives?

Option 2: Advocacy organisation

- They are set up by representatives of the industry associations.
- **Objective:**
 - ❖ Qualitative
 - ❖ Linked to the implementation of EU policies and relevant strategies
- **Structure:** complex and well-defined.
 - ❖ General Assembly
 - ❖ Board of directors
 - ❖ Policy committees
 - ❖ Working groups
 - ❖ Task forces and subgroups
- **Membership:** “High level” (national associations and non-governmental trade associations within and outside the EU area), but also corporate level.
- **Financing:** membership.

Option 3: A practical proposal of the partnership

- Create a **carbon storage obligation (CSO)**
 - CSO = A % of emissions to be captured and stored
- Create a **carbon storage unit (CSU)**
 - CSU = 1 ton of stored carbon

→ CSUs are the only unit good for use to meet CSO obligations !

- This mechanism can be built internally within the EU or externally through international mechanisms.

Option 3: A practical proposal of the partnership

- Metodology on monitoring, reporting and accounting is being developed under A6.4.

A6.4-SB003-A03
Recommendation: Activities involving removals under the Article 6.4 mechanism
Version 01.0

Recommendations on guidance for activities involving removals under the Article 6.4 Mechanism

1. Introduction

- The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA), by its decision 3/CMA.3 "Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement", paragraph 6(c), requested the Supervisory Body of the mechanism established by Article 6, paragraph 4, of the Paris Agreement (Article 6.4 mechanism), to elaborate and further develop, on the basis of the rules, modalities and procedures of the Article 6.4 mechanism, recommendations on activities involving removals, including appropriate monitoring, reporting, accounting for removals and crediting periods, addressing reversals, avoidance of leakage, and avoidance of other negative environmental and social impacts, in addition to the activities referred to in chapter V of the annex (Article 6, paragraph 4, activity cycle), to be considered at its fourth session (November 2022).¹
- Following the request by the CMA, the Supervisory Body agreed on recommendations on activities involving removals under the Article 6.4 mechanism, as contained in this document.
- The Supervisory Body noted that the recommendations provided herein are applicable to activities involving removals in general, but do not include detailed requirements for specific types of activities involving removals such as land-based and engineering-based activities. In order to develop the detailed requirements, more work will need to be undertaken by the Supervisory Body, including specific work areas indicated in these recommendations.

2. Definitions

- For the purpose of this guidance, "removals" are processes or outcome of processes to remove greenhouse gases (GHGs) from the atmosphere through anthropogenic activities and durably store in geological, terrestrial, or ocean reservoirs, or in products.

3. Requirements

- Activities involving removals under the Article 6.4 mechanism shall meet the requirements contained in sections 3.1 to 3.7 below, in addition to the requirements contained in the annex to decision 3/CMA.3 "Rules, modalities and procedures for the mechanism established by Article 6, paragraph 4, of the Paris Agreement", and any further relevant decisions of the CMA.

A6.4-SB003-A03
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3.1. Monitoring

- Activity participants shall monitor removals through quantification and estimation based on an appropriate combination of field measurements, remote sensing, measurement through instrumentation, and/or modelling.
- Calculation of removals shall be stated with the associated uncertainties, and these uncertainties shall be within the limits to be specified in the methodologies.
- If the uncertainty of calculation of removals exceed the specified limits, the calculated values shall be adjusted in a conservative manner.
- Calculation of removals may employ conservative default values that allow flexibility in monitoring.
- In order to address the risk of reversals and to ensure full compensation of reversals if they occur, monitoring shall also be conducted after the end of the last crediting period of activities involving removals in accordance with the methodological provisions to be developed by the Supervisory Body.

3.2. Reporting

- Activity participants shall prepare monitoring reports after monitoring operations and summarize the calculated amount of removals resulting from the monitoring.
- Monitoring reports shall contain:
 - Description of monitoring operations and methods, and the resulting calculated removals along with the associated uncertainties in the calculation;
 - Field data, including remotely sensed data, or if such data is too voluminous, a summary of such data and an indication of how the complete data set may be accessed;
 - Records and logs of observed events that could potentially lead to reversal of removals as well as a summary of any reversal notifications that were submitted during the monitoring period;
 - Estimates of a reversal that occurred, if any, during each monitoring period;
 - Information on how the reversal that occurred, if any, was addressed following requirements to be developed by the Supervisory Body;
 - Information on how the environmental and social impacts were assessed and addressed by applying robust social and environmental safeguards, following provisions to be developed by the Supervisory Body;
 - Information on how the activity involving removals is fostering sustainable development, following provisions to be developed by the Supervisory Body.
- If the purpose of monitoring is to ensure and demonstrate continued existence of removals, simplified monitoring and reporting may be allowed, subject to provisions to be developed by the Supervisory Body.

A6.4-SB003-A03
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- The initial monitoring and subsequent monitoring shall be carried out, and monitoring reports submitted, within maximum timeframes to be specified by the Supervisory Body. Monitoring and reporting may also be required within a specified timeframe of an observed event that could potentially lead to a reversal, in accordance with provisions to be developed by the Supervisory Body.

3.3. Accounting for removals

- Removals to be credited shall be those in excess of the baseline while deducting any activity emissions and leakage emissions.
- Any carbon pools and GHGs may be optionally excluded from accounting if such exclusion results in a more conservative calculation of net removals.
- If an activity involving removals also results in emission reductions, relevant guidance shall be applied through relevant methodology or combination of methodologies applicable to the activity in accordance with the provisions to be developed by the Supervisory Body.

3.4. Crediting period

- At renewal of crediting period, activities involving removals shall apply the latest version of the applicable methodology.

3.5. Addressing reversals

- Activity participants shall minimize the risk of non-permanence of removals over multiple NDC implementation periods and, where reversals occur, ensure that these are addressed in full by following requirements to be developed by the Supervisory Body.

3.6. Avoidance of leakage

- Activity participants shall minimize the risk of leakage and adjust for any remaining leakage in the calculation of net removals following relevant provisions to be developed by the Supervisory Body.

3.7. Avoidance of other negative environmental and social impacts

- Activity participants shall minimize and, where possible, avoid, negative environmental and social impacts of an activity involving removals including impacts on biodiversity, land and soils, ecosystem health, human health, food security, local livelihoods, and the rights of the indigenous peoples, by following requirements to be developed by the Supervisory Body while acknowledging that the enforcement of environmental and social protection laws is a national prerogative of the host Party.