

PACM REMOVALS NOTE | 01



Understanding the emerging framework for removal activities under Article 6.4

The information brief provides an update on the development of standards, methodologies, and tools for achieving Carbon Dioxide Removal (CDR) under the Article 6.4 Paris Agreement Crediting Mechanism (PACM) consistent with the long-term goal of the Paris Agreement.



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CONTEXT

If PACM is to provide meaningful support to achieve the long-term temperature goal of the Paris Agreement, CDR should play an important role under the mechanism. The Conference of the Parties serving as the meeting of the Parties to the Paris Agreement (CMA) has mandated the PACM Supervisory Body (SB) to make recommendations on activities involving removals. The SB complied by preparing the Removals Standard, which CMA6 approved

in 2024. However, the standard was not detailed enough to develop methodologies and implement CDR activities. In consequence, several regulatory instruments have been developed and adopted, leading to a complex legal landscape that continues to evolve. **To help stakeholders navigate the different decision documents, this information brief provides an update on the development of CDR rules under PACM.**

THE RELEVANT REGULATORY BUILDING BLOCKS

This section briefly introduces the different regulatory building blocks that govern CDR activities under PACM.

Figure 1 illustrates how the different building blocks interact with each other.

REMOVALS STANDARD

The Removals Standard ensures consistency across different removal types although how its requirements are applied in practice will differ by the type of removal and carbon storage reservoir. Even after the standard's approval, many questions remained open on the rules for CDR activities, especially on identifying and managing reversals. Paragraph 62 of the standard mandates developing strategies to manage the Reversal Risk Buffer Account and remediate reversals through alternative approaches like insurance or monetary permanence reserves. As a first step, the PACM Methodological Expert Panel (MEP) in

July 2026 published a concept note. The concept note outlines potential options for managing the buffer pool account and for post-crediting assurance arrangements to demonstrate sufficient management of future reversal risks necessary to exit the post-crediting monitoring period (PCMP). During the public input period in July 2026, more than 20 organizations provided feedback which the MEP will consider as it continues developing the concept note. However, the concept note was not discussed further at either MEP15 in July 2026 or MEP16 in September 2026.

FIGURE 1: HOW ARTICLE 6.4 GOVERNS REMOVALS: CURRENT BUILDING BLOCKS

1 · TOP-LEVEL STANDARDS — SOURCE OF AUTHORITY

BASIS: CMA decision

Removals Standard <i>Standard (binding) · v01.0 · A6.4-STAN-METH-002</i> Integrity rulebook Common integrity requirements for all removal activities; top-level rules that methodologies must translate.	Approved Adopted at SBM 014; in force 9 Oct 2024
Para. 62 — post-crediting assurance Managing future reversal risks before exiting the post-crediting monitoring period (PCMP) — still to be operationalized.	

BASIS: MEP recommendation, adopted by the SB

Reversals Standard <i>Standard (binding) · v03.0 · A6.4-STAN-METH-007</i> Methodology rulebook What methodologies must contain on non-permanence: monitoring, buffer pools, remediation of lost carbon.	Approved SBM 018; in force 10 Oct 2025 · updated SBM 023 Oct 2026
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2 · TOOLS AND DOCUMENTS DEVELOPED / UNDER DEVELOPMENT

Reversal Risk Assessment Tool <i>Methodological tool · v01.0 · A6.4-AMT-011</i> Technical calculator Sizes the buffer pool share and guides negligible risk determinations (guidance still pending). So far covers only non-renewable biomass; forestry, geological storage and biochar to follow.	Approved Adopted at SBM 023; in force 9 Oct 2026 · updates pending
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Both standards mandate the tool: Removals Standard para. 38 (risk factor);
 Reversals Standard paras. 12 (buffer pool) and 3(k) (negligible risk)

Bridging work: Concept note on Removals Standard para. 62 (v01.0, A6.4-MEP014-A08) Explores post-crediting assurance options needed to exit the PCMP (Removals Standard para. 62; Reversals Information Note s. 4.2.1).	Under development With MEP; 20+ public inputs (Jul 2026) pending
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Reversals Information Note <i>Information note (informative) · v01.0 · A6.4-INFO-METH-002 · accompanies the Reversals Standard</i> Operational workflow Proposed steps for participants, DOEs, secretariat, and registry to identify, report and remediate reversals.	Published Approved at SBM 018; published Oct 2025
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Concept note: Reversal Risk Buffer Pool Account contributions of authorized Article 6.4 emission reductions, including potential implications for accounting of nationally determined contributions <i>Information note (conceptual) · v01.0 · A6.4-SBM023-AA-A12</i> Assesses issues that accounting requirements for operating the reversal risk buffer pool account and discusses potential solutions.	Published By SB in Sept 2026, as annex to the SBM 023 annotated agenda
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Sustainable Development Tool (SD Tool) <i>Methodological tool (binding) · v01.1 · A6.4-TOOL-AC-001 · cross-cutting: applies to all PACM activities</i> Ensures PACM activities comply with the “do no harm” principle and foster sustainable development. <i>Requires additional safeguards criteria for CDR activities in LULUCF, to be annexed to the tool ↓</i>	Approved Adopted at SBM 014; in force 9 Oct 2024 · updates pending
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Concept note: additional criteria for applying the SD Tool to CDR activities in LULUCF <i>Information note (conceptual) · v01.0 · A6.4-SBM017-AA-A05</i> Supports development of safeguards and guidance questions the tool requires for CDR activities in LULUCF.	Published By SB in July 2025, as annex to the SBM 017 annotated agenda
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Still missing for a fully operational set of rules

- 1) Expansion of Reversal Risk Assessment Tool to activities beyond non-renewable biomass.
- 2) Operationalization of Removals Standard para. 62: viable alternatives to the buffer account.
- 3) No methodology has yet been adopted for any specific removal activity type.

REVERSALS STANDARD

The **Reversals Standard** addresses gaps left by the Removals Standard and provides guidance for methodologies on how to address reversals of carbon already credited under PACM. Tasked with developing different guidance documents related to reversals (e.g., for monitoring, reporting, and remediating reversals; distinguishing between avoidable and unavoidable reversals; and conducting reversal risk assessments), the MEP proposed a second standard document which the SB adopted in October 2025. Going beyond the initially planned non-binding guidance, the Reversals Standard upgrades the provisions and give special regulatory weight to reversal-related issues. The standard provided additional reversal-related guidance for activity implementation, but important issues remained unresolved.

Among others, a **Reversal Risk Assessment Tool** to calculate buffer pool contributions and conduct negligible-risk assessments, is still under development. The tool enables activity participants to determine the share of A6.4ERs a project must contribute to the buffer pool account to compensate for potential reversals; in addition, the tool should help assess if an activity is subject to a negligible risk of reversal and if the PCMP can hence be exited. The share of buffer A6.4ERs is calculated by combining natural and human-in-

duced risk factors (calibrated against host-country measures) using activity-specific default values defined in the tool. The SB adopted **version 01.0** of the tool at SBM23 in October 2026 where default values are only applicable to activities reducing consumption of non-renewable biomass; versions to cover forestry, subsurface geological storage, and biochar will follow. The Reversals Standard is also accompanied by an **information note** on the integration of non-permanence- and reversals-related elements in relevant activity procedures.

Finally, a recent **concept note** prepared for SBM23 addresses accounting issues around operating the buffer pool account. In particular, the concept note explores whether authorized A6.4ERs in the buffer pool can remediate potential future losses of credited stored or avoided carbon in line with Article 6 accounting rules. At SBM23, the SB requested the PACM secretariat to prepare detailed solution options with MEP input and asked the MEP to consider accounting implications when operationalizing Removals Standard Paragraph 62. The SB will continue exploring options to improve buffer pool operation, as well as possible alternatives to the buffer pool that align with Article 6.2 accounting provisions in 2027. It will report on this work and flag any need for CMA guidance in its report to CMA9 in late 2027.

SUSTAINABLE DEVELOPMENT TOOL

The **Sustainable Development Tool** (SD Tool) ensures that all PACM activities – including activities involving reversals – comply with the “do no harm” principle and foster sustainable development. The SD Tool requires the development of additional criteria for applying the tool

to CDR activities in the land use, land use change, and forestry (LULUCF) sector. Therefore, the SB published a concept note in July 2025 which presents relevant key issues and solutions. The SD Tool is supposed to be revised accordingly at the next SBM in early 2027.

CONCLUSION

The PACM rules are already overly complex and, yet, they are still missing a few components to be fully operational:

- Methodologies for specific removal activity types to develop projects.
- Expansion of the reversal risk assessment tool to a wide range of activities beyond non-renewable biomass.
- Viable alternatives to the buffer pool account to manage future reversal risks as well as specifications on how the buffer will be managed.

Achieving the Paris Agreement’s temperature goals requires timely deployment of CDR at scale which, in turn, requires rules that facilitate the development of robust and credible CDR projects at scale. It is essential that the SB delivers rules that are not overly complex and enable project participants to develop carbon projects.

