Please note that this is an excerpt of the TAB Report finalized in August 2025.

- 4. TAB RECOMMENDATIONS ON APPLICATIONS FOR RE-ASSESSMENT AND MATERIAL CHANGES
- 4.1 GENERAL ELIGIBILITY PARAMETERS FOR CORSIA COMPLIANCE PERIODS
- 4.1.1 TAB recommended Eligibility Timeframe and Unit Date Eligibility

CORSIA second phase, 2027-2029 compliance period

- 4.1.1.1 TAB recommends that the Council approve the general eligibility parameters in this section for application in the first compliance period (2027-2029) of the CORSIA second phase. This recommendation does not in any way alter programmes' existing eligibility scopes or parameters for CORSIA's pilot phase (2021-2023 compliance period) or first phase (2024-2026 compliance period).
- 4.1.1.2 The following parameters of **unit date eligibility** apply to all CORSIA Eligible Emissions Units that are approved by the ICAO Council for use in the first compliance period of the CORSIA second phase, in addition to any programme-specific eligibility parameters recommended for a particular programme:
 - a) eligible for cancellation for use toward CORSIA offsetting requirements in the 2027-2029 compliance period (hereafter "eligibility timeframe"); and
 - b) issued:
 - 1) to activities that started their first crediting period from 1 January 2016; and
 - 2) in respect of emissions reductions that occurred from 1 January 2021 through 31 December 2029.
- 4.1.1.3 **Extension of unit date eligibility**: The date(s) in paragraphs 4.1.1.2 above may only be extended to apply to eligibility timeframes beyond the first compliance period (2027-2029) of the CORSIA second phase, and/or eligible unit dates after 31 December 2029, subject to the Council decision and TAB recommendations. TAB may recommend such an extension to the Council where TAB's analysis identifies that an emissions unit programme is fully consistent with all of the EUC and guidelines when assessing the eligibility of emissions units with eligibility dates beyond 31 December 2029.

CORSIA first phase, 2024-2026 compliance period

- 4.1.1.4 At its 228th Session in March 2023, the Council approved the general eligibility parameters for application in CORSIA's first phase (2024-2026 compliance period) (C-DEC 228/7), as recommended in section 4.1.2 of TAB's January 2023 report to Council. These general eligibility parameters apply to all CORSIA Eligible Emissions Units that are approved by the ICAO Council for use in the CORSIA first phase (2024-2026 compliance period), in addition to any programme-specific eligibility parameters recommended for a particular programme:
 - a) eligible for cancellation for use toward CORSIA offsetting requirements in the 2024-2026 compliance period (hereafter eligibility timeframe); and
 - b) issued:
 - 1) to activities that started their first crediting period from 1 January 2016; and
 - 2) in respect of emissions reductions that occurred from 1 January 2021 through 31 December 2026.

4.1.1.5 In accordance with the TAB Procedures, TAB is no longer inviting new applications for eligibility for CORSIA's first phase¹¹. All previously eligible programmes reassessed for this report to Council continue to be eligible for the first phase, subject to their existing eligibility parameters set out in section II of the ICAO document titled "CORSIA Eligible Emissions Units". TAB will continue to consider and could make additional recommendations for first-phase eligibility of emissions unit programmes that respond to its 2026 call for new applications for CORSIA's second phase (2027-2029 period).

CORSIA pilot phase (2021-2023 compliance period)

4.1.1.6 At its 219th Session in March 2020, the Council approved the general eligibility parameters for application in CORSIA's pilot phase (2021-2023 compliance period) (C-DEC 219/6), as recommended in section 4.1 of TAB's January 2021 report to Council. In accordance with the TAB Procedures, TAB is no longer inviting new applications for eligibility for the pilot phase only ¹². All previously eligible programmes re-assessed for this report to Council continue to be eligible for the pilot phase, subject to their existing eligibility parameters set out in section I of the ICAO document titled "CORSIA Eligible Emissions Units".

4.1.2 TAB Recommendations Related to Emissions Unit Programme Registries

- 4.1.2.1 TAB recommends that the Council requests all emissions units programmes that are eligible to supply emissions units for the first phase (2024-2026), as well as programmes that the Council decides are eligible for the first compliance period of the second phase (2027-2029) based on recommendations in this report, to implement updates to their programme registry(ies) if necessary to fulfil the functions listed below, as well as any outstanding programme-specific further actions related to the programme registry, and to evidence such updates by re-submitting the Programme Registry Attestation Part A (signed), as well as the Programme Registry Attestation Disclosure Form, in response to a 2026 TAB call for submissions of programme change notification forms, to:
 - a) enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the Environmental Technical Manual, Volume IV ¹³, preferably as discrete data that is column-separated, searchable, and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - b) enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - c) ensure that the information in paragraph a) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx.
- 4.1.2.2 In keeping with the Registry Attestation requirements, until such updates are undertaken and are subsequently communicated to and confirmed by TAB, the status of these programme registries will be notified in the ICAO document *CORSIA Eligible Emissions Units*. Section 4.4 (Criteria Interpretations) provides background information on this recommendation and its basis.

¹¹ Paragraph 7.8 of the TAB Procedures sets out the three-year cycle for TAB assessments and re-assessments.

¹² Ibid

¹³ Doc 9501 — Environmental Technical Manual, Volume IV

4.2 2025 TAB ASSESSMENT CYCLE: SUMMARY OFRECOMMENDATIONS

- 4.2.1 In its 2025 assessment cycle, TAB reassessed applications from organizations seeking to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period of the CORSIA's second phase. In parallel, TAB assessed material changes submitted by programmes that are conditionally eligible for the first phase (2024-2026 compliance period).
- 4.2.2 TAB's recommendations to Council from its 2025 assessment cycle are summarized in this section 4.2. Section 4.3 then presents the detailed information on each recommendation, including any programme-specific eligibility parameters and further actions requested of each programme.

Assessments for the CORSIA second phase, 2027-2029 compliance period

4.2.3 Programmes recommended for immediate eligibility

- 4.2.3.1 In this report, TAB recommends the following four programmes for approval as immediately eligible to supply CORSIA Eligible Emissions Units for the second phase, 2027-2029 compliance period:
 - 1. American Carbon Registry (ACR)
 - 2. Architecture for REDD+ Transactions (ART)
 - 3. Gold Standard (GS)
 - 4. Verified Carbon Standard (VCS)

Assessment for the CORSIA first phase (2024-2026 compliance period)

4.2.4 Programmes recommended for immediate eligibility

- 4.2.4.1 In this report, TAB recommends the following two programmes for approval as immediately eligible to supply CORSIA Eligible Emissions Units for the first phase (2024-2026 compliance period):
 - 1. Isometric
 - 2. Premium Thailand Voluntary Emission Reduction Program (Premium T-VER)

4.2.5 **Programmes invited to reapply**

4.2.5.1 In this report, TAB recommends that CERCARBONO be invited to submit an application for TAB's assessment to supply CORSIA Eligible Emissions Units for the CORSIA's second phase, 2027-2029 compliance period, and potentially its first phase, 2024-2026 compliance period, as explained in paragraph 4.1.1.5 of this report.

4.2.6 Programmes that remain under assessment

- 4.2.6.1 In this report, TAB recommends that the following two programmes remain conditionally eligible for the first phase, 2024-2026 compliance period; TAB intends to conclude its assessment of material procedural changes submitted by these programmes for consideration at its 22nd meeting (January 2026) and to provide updates to the Council in due course:
 - 1. Forest Carbon Partnership Facility (FCPF)
 - 2. BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)

4.3 2025 TAB ASSESSMENT CYCLE: DETAILED RECOMMENDATIONS

Assessment for the 2027-2029 compliance period (part of CORSIA second phase)

4.3.1 **Programmes recommended for immediate eligibility**

- 4.3.1.1 TAB recommends that the following emissions unit programmes should be approved to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period (part of the second phase):
 - 1. American Carbon Registry (ACR)
 - 2. Architecture for REDD+ Transactions (ART)
 - 3. Gold Standard (GS)
 - 4. Verified Carbon Standard (VCS)
- 4.3.1.2 The eligibility of the emissions units for the 2027-2029 compliance period should be subject to the general eligibility parameters set out in Section 4.1.1 and any programme-specific parameters set out for each given programme, respectively, in Sections 4.3.2 4.3.5 below, which should be clearly described in section III of the ICAO document titled "CORSIA Eligible Emissions Units". These programmes also continue to be eligible to supply emissions units for the first phase (2024-2026 compliance period) according to their existing eligibility parameters, as well as any additional eligibility parameters decided by the Council to apply in the first phase, set out in section II of the ICAO document titled "CORSIA Eligible Emissions Units".

4.3.2 American Carbon Registry (ACR)

4.3.2.1 TAB recommends that the American Carbon Registry (ACR) should be eligible to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period, and to add this programme to section III of the ICAO document titled "CORSIA Eligible Emissions Units."

Background on programme status

- 4.3.2.2 ACR first applied for assessment by the TAB in July 2019. In March 2020, the Council accepted TAB's recommendation that ACR should be eligible for pilot phase (2021-2023 compliance period). At its 222nd Session in March 2021, in light of TAB's assessment submitted by ACR, the Council approved the extension of ACR's Eligible Unit Dates through 31 December 2023.
- 4.3.2.3 ACR applied for first re-assessment by the TAB in March 2022. At its 228th Session in March 2023, the Council approved ACR for immediate eligibility to supply CORSIA units to the first phase (2024-2026 compliance period). At its 231st Session (March 2024), Council made administrative clarifications to ACR's entry in the ICAO document titled "CORSIA Eligible Emissions Units". In August 2024, ACR submitted updates (as "material changes") to programme procedures, including some changes designed to address the further actions requested by Council at 231st Session. TAB assessed these material changes during the second half of its 2024 assessment cycle.
- 4.3.2.4 In assessing the material changes submitted for TAB's assessment in August 2024, TAB found that ACR has completed items b) and c) on the list of *Further actions requested* in paragraph 4.2.1.4 of the TAB report dated August 2024. The Council re-iterated the remaining items on the list. These actions do not need to be taken to retain ACR's entry in section II of the ICAO document titled "CORSIA Eligible Emissions Units".

4.3.2.5 ACR applied for second re-assessment by the TAB in March 2025 to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period.

General findings

- 4.3.2.6 TAB found that ACR's procedures, standards, and related governance arrangements that were in place and assessed by TAB in its 2025 assessment cycle were largely consistent with the contents of the EUC as TAB applied them in its eligibility re-assessments for the CORSIA second phase, 2027-2029 compliance period, for emissions units generated under the programme from 1 January 2021 through 31 December 2029.
- 4.3.2.7 TAB found that ACR demonstrated technical consistency with most, but not all, contents of the criterion Programme Governance, including in relation to this criterion's guidelines for Programme Longevity and for Programme administrator and staff conflicts of interest. These common findings are discussed in section 4.4 (Criteria Interpretation) and informed the programme-specific eligibility parameters and further actions requested below.
- 4.3.2.8 TAB found that ACR demonstrated technical consistency with most, but not all, contents of the criteria <u>Do not net harm</u> and <u>Safeguard Systems</u>, in respect of novel CDR activity types. This common finding is discussed in section 4.4 (Criteria Interpretation) and informed the programme-specific eligibility parameters and further actions requested below.
- 4.3.2.9 TAB found that ACR demonstrated technical consistency with most, but not all, contents of the Offset Credit Issuance and Retirement Procedures criterion—specifically in relation to this criterion's guidelines for the *program-designated registry's public-facing elements and reports*. This common finding is discussed in section 4.4 (Criteria Interpretation) and informed the general eligibility parameters and further actions requested of the programme below.
- 4.3.2.10 TAB found that ACR demonstrated technical consistency with most, but not all, contents of the criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u>, specifically in relation to the criterion's guideline for baselines to be set in a conservative manner and *below business-as-usual*. TAB noted that this common finding is consistent with past observations on this topic, most recently in section 4.4 of the TAB Report dated August 2024 and section 6 of the TAB Report dated August 2022. Because baselines are a foundational element of emissions unit quantification, most programmes, including this programme, are taking a step-wise approach toward consistency with this element. This finding informed the programme-specific eligibility parameters and further actions requested below.
- 4.3.2.11 TAB found that ACR demonstrated technical consistency with most, but not all, provisions of the criterion Only counted once toward a mitigation obligation, specifically in relation to this criterion's guidelines for *Host country attestation to the avoidance of double-claiming, comparing unit use against national reporting*; and *Host country attestation specifications*; the latter was a common finding. Together, these findings informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.2.12 *Scope:* ACR submitted for TAB's assessment all activity types and scales, unit types, methodologies, and procedural categories supported by the programme. TAB recommends the following exclusions and/or limitations to the programme's scope of eligibility: (1) the general eligibility parameters in Section 4.1.1, and (2) ACR's existing programme-specific eligibility parameters for the pilot phase and first phase set out in Parts I and II of ICAO document titled "CORSIA Eligible Emissions Units", as amended below for the 2027-2029 compliance period:

American Carbon Registry (ACR)

Scope of Eligibility:

ACR Emission Reduction Tonnes (ERTs), including any additional certifications, and with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

- a) California and Washington Registry Offset Credits (ROCs)
- b) California Early Action Offset Credits (EAOCs)
- c) ERTs issued to all activities that are developed in REDD+countries¹⁴ and utilize methodologies in the programme's Sectoral Scope 3 (Land Use, Land Use Change and Forestry) category and are estimated¹⁵ to generate greater than 7,000 Emission Reduction Tonnes (ERTs) / annum individually or grouped.
- d) ERTs issued in respect of emissions reductions that occurred from 1 January 2021 onward and that have <u>not</u> been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming¹⁶.
- e) ERTs issued to activities using methodologies for which the programme, its methodology developers and/or activity proponents have not quantitatively demonstrated in publicly available information that the baseline(s) resulting from the methodology's use are set below the business-as-usual level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity.
- f) ERTs issued to geological carbon storage activities that are not safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects¹⁷.
- 4.3.2.13 TAB also recommends making consequential amendments to the Part II of the ICAO document "CORSIA Eligible Emissions Units":
 - e) ERTs issued to geological carbon storage activities that are not safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects¹⁸.

Further actions requested of the programme

¹⁴ Referring to countries that are pursuing elements of REDD+ as defined in key decisions relevant for reducing emissions from deforestation and forest degradation in developing countries (REDD+), including the Warsaw Framework for REDD+.

¹⁵ According to estimates specified at the time of activity registration.

¹⁶ Refers to the "Host country attestation to the avoidance of double-claiming" guideline for interpretation of the "Only counted once towards a mitigation obligation" criterion, in https://www.icao.int/sites/default/files/environmental-protection/CORSIA/Documents/TAB/Programme-Re-application-Form_Appendix_A_Supplementary_Information_2025.pdf, paragraph 3.7.8

¹⁷ ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values, Section 11.1.

 $^{^{18}}$ Ibid

- 4.3.2.14 TAB recommends that the Council requests ACR to undertake the following further actions, which do not need to be taken prior to adding ACR to section III of the ICAO document titled "CORSIA Eligible Emissions Units":
 - a) in the next relevant update of ACR's procedures, establish (or clarify) applicability of conflict-of-interest rules and procedures to any third parties or panels providing technical advice to the programme in the review, update, or approval of methodologies or activities; in particular, procedures for identifying and isolating real or perceived conflicts of interest, consistent with the Guidelines for Criteria Interpretation pertaining to conflicts of interest;
 - b) develop and communicate to TAB, in response to a 2026 TAB call for submissions of potentially material programme change notification form, written evidence of the ACR's plans for the long-term administration of multi-decadal programme referred to in the Programme Longevity guideline, including information necessary to support the TAB's understanding of how the programme has considered providing for the continuity of multi-decadal programme responsibilities and of the status and ownership of registry assets, for example a business continuity plan;
 - c) establish procedures to ensure that all activities generating CORSIA Eligible Emissions Units for geological carbon storage are safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects¹⁹;
 - d) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions of potentially material programme change notification form, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the *Environmental Technical Manual* (Doc 9501), Volume IV ²⁰, preferably as discrete data that is column-separated, searchable, and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx;

¹⁹ ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values, Section 11.1.

²⁰ Doc 9501 — Environmental Technical Manual, Volume IV

- e) put in place procedures for the programme, its methodology developers and/or activities to quantitatively demonstrate in publicly available information that the baselines resulting from the use of programme methodologies are set below the *business-as-usual* level of emissions or, for non-traditional activities (e.g. jurisdiction-scale, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity; and
- f) in the upcoming revision to the ACR's Guidance on Implementation of Paris Agreement Article 6 Requirements:
 - i. update ACR's procedures related to the contents of host country attestations to include all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5;
 - ii. reincorporate provisions from previous version(s) of the programme guidance that include a host country declaration of the avoidance of double-claiming in the expected attestation contents; and
 - iii. Further elaborate the timing and specific processes by which the programme will compare countries' accounting for emissions units in national emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA, for example to indicate the reports to be monitored and sequencing of steps to be taken by the programme.

4.3.3 Architecture for REDD+ Transactions (ART)

4.3.3.1 TAB recommends that the Architecture for REDD+ Transactions (ART) should be eligible to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period and add to this programme to section III of the ICAO document titled "CORSIA Eligible Emissions Units."

Background on programme status

- 4.3.3.2 ART first applied for assessment by the TAB in 2020. In November 2020, the Council accepted TAB's recommendation that ART should be eligible for pilot phase (2021-2023 compliance period). At its 224th Session in September 2021, in light of TAB's assessment submitted by ART, the Council approved the extension of ART's Eligible Unit Dates through 31 December 2023.
- 4.3.3.3 ART applied for first re-assessment by the TAB in March 2022. At its 228th Session in March 2023, the Council approved ART for immediate eligibility to supply CORSIA units to the first phase (2024-2026 compliance period).
- 4.3.3.4 ART applied for second re-assessment by the TAB in March 2025 to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period.

General findings

- 4.3.3.5 TAB found that ART's procedures, standards and related governance arrangements that were in place and assessed by TAB in its 2025 assessment cycle were largely consistent with the contents of the EUC as TAB applied them in its eligibility re-assessments for the CORSIA second phase, 2027-2029 compliance period, for emissions units generated under the programme from 1 January 2021 through 31 December 2029.
- 4.3.3.6 TAB found that ART demonstrated technical consistency with most, but not all, contents of the criterion <u>Programme Governance</u>, including in relation to this criterion's guidelines for *Programme Longevity*. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters and further actions requested below.
- 4.3.3.7 TAB found that ART demonstrated technical consistency with most, but not all, contents of the criterion <u>Transparency and Public Participation Provisions</u>. TAB observed that ART provides substantial information pertaining to public comments, stakeholder consultation, and how the results of these processes are addressed by the programme. However, TAB noted that the line-of-sight is unclear between (a) consultations that are directly related to the development and implementation of a national ART TREES program and (b) consultations on broader domestic policy-making related to REDD+. This finding informed the further action requested below.
- 4.3.3.8 TAB found that the programme demonstrated technical consistency with most, but not all, contents of the Offset Credit Issuance and Retirement Procedures criterion—specifically in relation to this criterion's guideline for the program-designated registry's public-facing elements and reports. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the general eligibility parameters and further actions requested of the programme below.
- TAB found that the programme demonstrated technical consistency with most, but not all, contents of the criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u>, specifically in relation to the criterion's guidelines for baselines to be set in a conservative manner and *below business-as-usual*. TAB noted that this common finding is consistent with past observations on this topic, most recently in section 4.4 of the TAB Report dated August 2024 and section 6 of the TAB Report dated August 2022. Because baselines are a foundational element of emissions unit quantification, most programmes, including ART, are taking a step-wise approach toward consistency with this element. This finding informed the programme-specific eligibility parameters and further actions requested below. TAB also noted that the programme supports national programs to apply novel methods for setting jurisdiction-scale baselines in geographies with high forest cover but low rates of deforestation, historically; TAB's assessment of these methods is further discussed in section 4.4 (Criteria Interpretations).
- 4.3.3.10 TAB found that the programme demonstrated technical consistency with some but not all provisions of the criterion <u>Permanence</u>—specifically in relation to the criterion's guideline for *risk* assessment. This common finding informed the further action requested of the programme below.
- 4.3.3.11 TAB found that the programme demonstrated technical consistency with many, but not all, provisions of the criterion Only counted once toward a mitigation obligation, specifically in relation to this criterion's guidelines for *Host country attestation to the avoidance of double-claiming, comparing unit use against national reporting*; and *Host country attestation specifications*; the latter was a common finding. Together, these findings informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.3.12 Scope: ART submitted for TAB's assessment all activity types and scales, unit types, methodologies and procedural categories supported by the programme. TAB recommends the following exclusions and/or limitations to the programme's scope of eligibility: (1) the general eligibility parameters in Section 4.1.1, and (2) ART's existing programme-specific eligibility parameters for the pilot phase and first phase set out in Parts I and II of ICAO document titled "CORSIA Eligible Emissions Units", as amended below for the 2027-2029 compliance period:

Architecture for REDD+ Transactions (ART)

Scope of Eligibility:

ART credits, including any additional certifications, and with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

- a) ART credits issued in respect of emissions reductions that occurred from 1 January 2021 onward and that have <u>not</u> been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming²¹.
- b) ART credits issued to programs using methods for which the programme itself and/or its national programs have not quantitatively demonstrated in publicly available information that the baseline(s) resulting from the standard's use are set below the *business-as-usual* level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity.

Further actions requested of the programme

4.3.3.13 TAB recommends that the Council requests ART to undertake the following further actions, which do not need to be taken prior to adding ART to section III of the ICAO document titled "CORSIA Eligible Emissions Units":

- a) develop and communicate to TAB, in response to a 2026 TAB call for submissions of potentially material programme change notification form, written evidence of the programme's plans for the long-term administration of multi-decadal programme referred to in the Programme Longevity guideline, including information necessary to support the TAB's understanding of how the programme has considered providing for the continuity of multi-decadal programme responsibilities and of the status and ownership of registry assets, for example a business continuity plan;
- b) in the next update to ART TREES, consistent with the programme's procedures for periodic (triennial) review, incorporate lessons learned in the implementation of the most recent version of the standard in relation to the grievance and appeals process and relevant findings from the Technical Expert Review Teams under Article 6.2 of the Paris Agreement;

²¹ Refers to the "Host country attestation to the avoidance of double-claiming" guideline for interpretation of the "Only counted once towards a mitigation obligation" criterion, in https://www.icao.int/sites/default/files/environmental-protection/CORSIA/Documents/TAB/Programme-Re-application-Form_Appendix_A_Supplementary_Information_2025.pdf, paragraph 3.7.8

- c) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions potentially material programme change notification form, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the *Environmental Technical Manual*, Volume IV²², preferably as discrete data that is column-separated, searchable and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx;
- d) put in place procedures for the programme itself and/or its national programs to quantitatively demonstrate in publicly available information that the baselines resulting from the standard's use are set below the *business-as-usual* level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs), that baselines will deliver equivalent outcomes that avoid overestimating mitigation from an activity;
- e) at the next opportunity to update the ART TREES standard, provide further clarity on the procedures for assessing the mitigation factors that justify a reduction in programme reversal risk scores, including to support clearer identification and demonstration of such factors and the indicators against which the mitigation factors are assessed, as well as their verification by independent bodies, and the responsibilities of national programs, VVBs and the Secretariat in this methodological process; and
- f) in the next relevant review of the ART's procedures for the avoidance of double-claiming:
 - i. update programme procedures related to the contents of host country attestations to include: all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5;
 - ii. reincorporate provisions from previous version(s) of the programme guidance that include a host country declaration of the avoidance of double-claiming in the expected attestation contents; and
 - iii. further elaborate the timing and specific processes by which the programme will compare countries' accounting for emissions units in national

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²² Doc 9501 — Environmental Technical Manual, Volume IV

emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA, for example to indicate the reports to be monitored and sequencing of steps to be taken by the programme.

4.3.4 Gold Standard

4.3.4.1 TAB recommends that the Gold Standard (GS) should be eligible to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period, and to add this programme to section III of the ICAO document titled "CORSIA Eligible Emissions Units."

Background on programme status

- 4.3.4.2 GS first applied for assessment by the TAB in July 2019. In March 2020, the Council accepted TAB's recommendation that GS should be eligible for pilot phase (2021-2023 compliance period).
- 4.3.4.3 GS applied for first re-assessment by the TAB in March 2022. Council approved TAB's recommendation that GS be conditionally eligible for the first phase (2024-2026 compliance period) in March 2023, pending GS's implementation of further actions requested by the Council. In March 2024, the Council re-iterated its decision that GS should be conditionally eligible for the first phase and updated the list of *Further actions requested of the programme*, as recommended by TAB (see section 4.3.4.4 of TAB January 2024).
- 4.3.4.4 In April 2024, GS submitted material changes for TAB assessment in response to the Council decision from March 2024. At its 233rd Session in November 2024, the Council approved GS as immediate eligibility to supply CORSIA units to the first phase (2024-2026 compliance period).
- 4.3.4.5 GS applied for second re-assessment by the TAB in March 2025 to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period.

General findings

- 4.3.4.6 TAB found that Gold Standard's procedures, standards and related governance arrangements that were in place and assessed by TAB in its 2025 assessment cycle were largely consistent with the contents of the EUC as TAB applied them in its eligibility re-assessments for the CORSIA second phase, 2027-2029 compliance period, for emissions units generated under the programme from 1 January 2021 through 31 December 2029.
- 4.3.4.7 TAB found that GS demonstrated technical consistency with most, but not all, contents of the criterion <u>Programme Governance</u>, including in relation to this criterion's guidelines for *Programme Longevity* and for *Programme administrator and staff conflicts of interest*. These common finding are discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters and further actions requested of the programme below.
- 4.3.4.8 TAB found that GS demonstrated technical consistency with most, but not all, contents of the criteria <u>Carbon offset credits must be quantified, monitored, reported and verified, Do no net harm</u> and <u>Safeguard Systems</u>, in respect of novel CDR activity types. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters and further actions requested of the programme below. TAB will continue to assess the programme's procedures relating to

Engineered Removals, including the latest tools pending approval by the programme as of July 2025, and will report its findings to Council during its 237th Session (March 2025).

- 4.3.4.9 TAB found that GS demonstrated technical consistency with most, but not all, contents of the Offset Credit Issuance and Retirement Procedures criterion—specifically in relation to this criterion's guidelines for Registry security review and the program-designated registry's public-facing elements and reports. The latter was a common finding discussed in section 4.4 (Criteria Interpretations), together these findings informed the general eligibility parameters in section 4.1.2 and further actions requested of the programme below.
- TAB found that GS demonstrated technical consistency with most, but not all, provisions of the criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u>, specifically in relation to the criterion's guideline for baselines to be set in a conservative manner and *below business-as-usual*. TAB noted that this common finding is consistent with past observations on this topic, most recently in section 4.4 of the TAB Report dated August 2024 and section 6 of the TAB Report dated August 2022. Because baselines are a foundational element of emissions unit quantification, most programmes, including this programme, are taking a step-wise approach toward consistency with this element. This finding informed the programme-specific eligibility parameters and further action requested below. Under this same criterion, TAB found that the programme demonstrated technical consistency with most, but not all, contents of the criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u> in respect of activities that reduce emissions from the use of non-renewable biomass. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters set out below.
- 4.3.4.11 TAB found that the GS demonstrated technical consistency with most, but not all, contents of the criterion Are additional. TAB reiterated its criteria interpretations contained in the TAB Report dated August 2024, pertaining to criteria for Additionality, Realistic and credible baselines and Leakage, in respect of activities involving grid-connected renewable electricity generation/supply, which remain relevant to this reassessment and informed the programme-specific eligibility parameters below.
- 4.3.4.12 TAB found that GS demonstrated technical consistency with some but not all provisions of the criterion <u>Permanence</u>. This finding was discussed in section 4.4 (Criteria Interpretations) in the TAB Report dated August 2024 and informed the further actions requested of the programme below. In relation to the guideline *Extent of compensation provisions*, TAB also noted that some methodologies under the programme that involve crediting for emissions that present a reversal risk are not subject to the minimum timeframe for monitoring for and reconciling reversals.
- 4.3.4.13 TAB found that GS demonstrated technical consistency with most, but not all, provisions of the criterion Only counted once toward a mitigation obligation, specifically in relation to this criterion's guidelines for *Host country attestation to the avoidance of double-claiming, comparing unit use against national reporting*; and *Host country attestation specifications*; the latter was a common finding. Together, these findings informed the further actions requested of the programme below.
- 4.3.4.14 TAB discussed the programme's procedures for responding to developments in the transition of Clean Development Mechanism (CDM) methodological elements and activities to the Paris Agreement Crediting Mechanism (PACM), as discussed in section 4.4 of the TAB Report dated September 2023. TAB found that these developments could continue to affect the programme's ability to demonstrate technical consistency with some or all of the several criteria referenced in that report; this finding informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.4.15 Scope: GS submitted for TAB's assessment all activity types and scales, unit types, methodologies and procedural categories supported by the programme. TAB recommends the following exclusions and/or limitations to the programme's scope of eligibility: (1) the general eligibility parameters in Section 4.1.1, and (2) GS's existing programme-specific eligibility parameters for the pilot phase and first phase set out in Parts I and II of ICAO document titled "CORSIA Eligible Emissions Units", as amended below for the 2027-2029 compliance period:

Gold Standard

Scope of Eligibility:

The Gold Standard verified emissions reductions (VERs), including any additional certifications, that:

have been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming, and,

for which the programme has verified, in accordance with its procedures, that the corresponding adjustment has already been applied, and/or that are the subject of a Guarantee approved by the programme that covers all units to which the host country Letter of Authorization applies and have Eligible Unit Dates within the relevant CORSIA compliance period,

and with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

- a) Planned Emission Reductions (PERs)
- b) Units issued from micro scale activities where an accredited entity has not carried out validation and verification
- e) VERs issued to all activities that are developed in REDD+countries5 and utilize methodologies in the programme's Land Use and Forestry & Agriculture categories and are estimated6 to generate greater than 7,000 Verified Emissions Reductions (VERs) / annum individually or grouped, with the allowable exception of activities that utilize methodologies in the Soil Organic Carbon, Agriculture, and Livestock categories.
- c) VERs issued to all activities in the programme's Land Use and Forestry & Agriculture categories with the allowable exception of activities that utilize methodologies in the Agriculture and Livestock categories
- d) VERs issued to activities involving grid-connected renewable electricity generation/supply that are

- estimated²³ to have a maximum output capacity greater than 15 megawatt of electricity, individually or grouped
- e) VERs issued to all activities that utilize methodologies in the programme's Engineered Removals category/Sectoral Scope 16
- f) Activities that calculate the fraction of non-renewable biomass according to the Clean Development Mechanism's TOOL 30
- yellowers which the programme activities using methodologies for which the programme, its methodology developers and/or activity proponents have not quantitatively demonstrated in publicly available information that the baseline(s) resulting from the methodology's use are set below the business-as-usual level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity.
- 4.3.4.16 TAB also recommends making consequential amendments to the Part II of the ICAO document "CORSIA Eligible Emissions Units":
 - e) VERs issued to all activities that utilize methodologies in the programme's Engineered Removals category/Sectoral Scope 16.

Further actions requested of the programme

- 4.3.4.17 TAB recommends that the Council requests GS to undertake the following further actions, which do not need to be taken prior to adding GS to section III of the ICAO document titled "CORSIA Eligible Emissions Units":
 - a) in next relevant update of GS's procedures, establish (or clarify) applicability of conflict-of-interest rules and procedures to any third parties or panels providing technical advice to the programme in the review, update, or approval of methodologies or activities; in particular, procedures for identifying and isolating real or perceived conflicts of interest, consistent with the Guidelines for Criteria Interpretation pertaining to conflicts of interest;
 - b) develop and communicate to TAB, in response to a 2026 TAB call for submissions of potentially material programme change notification form, written evidence of the programme's plans for the long-term administration of multi-decadal programme referred to in the programme Longevity guideline, including information necessary to support the TAB's understanding of how the programme has considered providing for the continuity of multi-decadal programme responsibilities and of the status and ownership of registry assets, for example a business continuity plan;

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²³ According to estimates specified at the time of activity registration.

- c) establish procedures to ensure that all activities generating CORSIA Eligible Emissions Units for geological carbon storage are safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects²⁴;
- d) continue to make progress towards introducing internal registry security audit procedures (ISO/IEC 27001 certification) as described to TAB in the course of its reassessment and in prior assessments:
- e) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions of potentially material programme change notification form, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the Environmental Technical Manual, Volume IV²⁵, preferably as discrete data that is column-separated, searchable, and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx:
- f) put in place procedures for the programme, its methodology developers and/or activities to quantitatively demonstrate in publicly available information that the baselines resulting from the use of programme methodologies are set below the *business-as-usual* level of emissions or, for non-traditional activities (e.g. jurisdiction-scale, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity;
- g) establish a reversal risk buffer pool that is shared across all GS projects involving GHG removals with material risks of reversals:
- h) in the upcoming revision to Gold Standard's procedures for the avoidance of double-claiming:
 - i. update programme's procedures related to the contents of host country attestations to include all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5;

²⁴ <u>ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values</u>, Section 11.1.

²⁵ Doc 9501 — Environmental Technical Manual, Volume IV

- ii. reincorporate provisions from previous version(s) of the programme guidance that include a host country declaration of the avoidance of double-claiming in the expected attestation contents; and
- iii. further elaborate the timing and specific processes by which the programme will compare countries' accounting for emissions units in national emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA, for example to indicate the reports to be monitored and sequencing of steps to be taken by the programme; and
- put procedures in place for GS to (1) periodically monitor formal developments related to any CDM methodologies, processes and institutions, requirements and/or tools that are incorporated into the programme or referenced in its programme documents, (2) respond to substantive updates, revisions or other changes to those CDM contents, including as they are transitioned to the PACM, such that the relevant programme activities can use contents that are being actively governed and maintained, where available, for example at the time of a new activity's registration or an existing activity's soonest crediting period renewal, and (3) maintain a public compilation of any such actions or decisions taken thereon, which may be requested by TAB to inform its understanding of the status of these contents. This information could include, for example, a list of the CDM and/or PACM contents in use, and any programme plans or updates in relation to these.

4.3.5 Verified Carbon Standard (VCS)

4.3.5.1 TAB recommends that the Verified Carbon Standard (VCS) should be eligible to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period, and to add this programme to section III of the ICAO document titled "CORSIA Eligible Emissions Units."

Background on programme status

- 4.3.5.2 VCS first applied for assessment by the TAB in July 2019. In March 2020, the Council accepted TAB's recommendation that the VCS should be eligible for pilot phase (2021-2023 compliance period).
- 4.3.5.3 VCS applied for first re-assessment by the TAB in March 2022. Council approved TAB's recommendation that VCS be conditionally eligible for the first phase (2024-2026 compliance period) in March 2023, pending VCS's implementation of further actions requested by the Council. In August 2023, VCS submitted procedural updates for TAB's material change assessment and in March 2024, the Council reaffirmed its decision that VCS should be conditionally eligible for the first phase and updated the list of *Further actions requested of the programme* (TAB Report dated January 2024).
- 4.3.5.4 In April 2024, VCS submitted material changes for TAB assessment in response to the Council decision from March 2024. At its 233rd Session in November 2024, the Council approved VCS as immediate eligibility to supply CORSIA units to the first phase (2024-2026 compliance period).
- 4.3.5.5 VCS applied for second re-assessment by the TAB in March 2025 to supply CORSIA Eligible Emissions Units for the 2027-2029 compliance period.

General findings

- 4.3.5.6 TAB found that VCS' procedures, standards and related governance arrangements that were in place and assessed by TAB in its 2025 assessment cycle were largely consistent with the contents of the EUC as TAB applied them in its eligibility re-assessments for the CORSIA second phase, 2027-2029 compliance period, for emissions units generated under the programme from 1 January 2021 through 31 December 2029.
- 4.3.5.7 TAB found that VCS demonstrated technical consistency with most, but not all, contents of the criterion Programme Governance, including in relation to this criterion's guidelines for Programme Longevity and for Programme administrator and staff conflicts of interest. These common findings are discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters and further actions requested of the programme below.
- 4.3.5.8 TAB found that VCS demonstrated technical consistency with most, but not all, contents of the criteria Carbon offset credits must be quantified, monitored, reported, and verified, Do no net harm and Safeguard Systems, in respect of novel CDR activity types. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the programme-specific eligibility parameters and further actions requested below. TAB will continue to assess new VCS methodologies and modules for Carbon Capture and Storage that are submitted by the programme as material changes on a rolling basis.
- 4.3.5.9 TAB found that VCS demonstrated technical consistency with most, but not all, contents of the Offset Credit Issuance and Retirement Procedures criterion—specifically in relation to this criterion's guideline for the *program-designated registry's public-facing elements and reports*. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the general eligibility parameters in section 4.1.2 and further actions requested of the programme below.
- 4.3.5.10 TAB found that VCS demonstrated technical consistency with most, but not all, contents of the criterion Are additional. TAB reiterated its criteria interpretations contained in the TAB Report August 2024, pertaining to criteria for Additionality, Realistic and credible baselines and Leakage, in respect of activities involving grid-connected renewable electricity generation/supply, which remain relevant to this reassessment and informed the programme-specific eligibility parameters set out below. Related to those interpretations, TAB identified the need to further assess the implications of the pairing approach involving renewable energy activities in methodology VM00052, including for additionality and for energy security taking into account the criterion Safeguards System. Together, these initial considerations informed the programme-specific eligibility parameters set out below. TAB resolved to continue to assess the methodology VM00052 and associated tools for consideration at the next TAB meeting.
- 4.3.5.11 TAB found that VCS demonstrated technical consistency with most, but not all, contents of the criterion Carbon offset credits must be based on a realistic and credible baseline, specifically in relation to the criterion's guideline for baselines to be set in a conservative manner and below business-as-usual. TAB noted that this common finding is consistent with past observations on this topic, most recently in section 4.4 of the TAB Report dated August 2024 and section 6 of the TAB Report dated August 2022. Because baselines are a foundational element of emissions unit quantification, most programmes, including VCS, are taking a step-wise approach toward consistency with this element. This finding informed the programme-specific eligibility parameters and further actions requested of the programme below. Under this same criterion, TAB found that the programme demonstrated technical consistency with most, but not all, contents of the criterion Realistic and credible baselines in respect of activities that reduce emissions from the use of non-renewable biomass. This common finding is discussed in section 4.4 (Criteria Interpretation) and informed the programme-specific eligibility parameters set out below.

- 4.3.5.12 TAB found that VCS demonstrated technical consistency with some but not all provisions of the criterion Permanence—particularly in relation to the *Risk Assessment* guideline. TAB noted the programme's extensive and clear guidance for activities to complete the non-permanence risk tool. However, the assumptions, sources of data or analysis, or formulas that underpinned the calibration of some key indicators, ranges, and how they are used, were insufficiently transparent for TAB to conclude that the tool supports a risk assessment that "accounts for, inter alia, any potential causes, relative scale, and relative likelihood of reversals". This finding informed the further actions requested of the programme below.
- 4.3.5.13 TAB found that VCS demonstrated technical consistency with most, but not all, provisions of the criterion Only counted once toward a mitigation obligation, specifically in relation to this criterion's guidelines for Host country attestation to the avoidance of double-claiming, comparing unit use against national reporting; and Host country attestation specifications; the latter was a common finding. Together, these findings informed the further actions requested of the programme below.
- 4.3.5.14 TAB discussed the programme's procedures for responding to developments in the transition of Clean Development Mechanism (CDM) methodological elements and activities to the Paris Agreement Crediting Mechanism (PACM), as discussed in section 4.4 of the TAB Report dated September 2023. TAB found that these developments could continue to affect the programme's ability to demonstrate technical consistency with some or all of the several criteria referenced in that report; this finding informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.5.15 Scope: VCS submitted for TAB's assessment all activity types and scales, unit types, methodologies and procedural categories supported by the programme. TAB recommends the following exclusions and/or limitations to the programme's scope of eligibility: (1) the general eligibility parameters in Section 4.1.1, and (2) VCS' existing programme-specific eligibility parameters for the pilot phase and first phase set out in Parts I and II of ICAO document titled "CORSIA Eligible Emissions Units", as amended below for the 2027-2029 compliance period:

Verified Carbon Standard (VCS)

Scope of Eligibility:

Verified Carbon Units (VCUs), including any additional certifications, that:

have been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming, and,

for which the programme has verified in, accordance with its procedures, that the corresponding adjustment has already been applied, and/or that are subject of a Guarantee approved by the programme that covers all units to which the host country Letter of Authorization applies and have Eligible Unit Dates within the relevant CORSIA compliance period,

and with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

a) California Early Action Offset Credits (EAOCs)

- b) California Registry Offset Credits (ROCs)
- c) VCUs issued to activities that have not reported their sustainable development contributions or co-benefits in the course of applying the Climate, Community and Biodiversity (CCB) Standards or the Sustainable Development Verified Impact Standard (SD VISta Standard), or according to other default list(s) of sustainable development criteria that the VCS clearly identifies for such use.
- d) VCUs issued to activities involving grid-connected renewable electricity generation/supply that are estimated²⁶ to have a maximum output capacity greater than 15 megawatt of electricity, individually or grouped; or those utilizing the methodologies /tools in VM0052 and VMD0060.
- VCUs that utilize methodologies AMS.II-G and/or VMR006.
- VCUs issued to activities that utilize methodologies from e) within the programme's Sectoral Scope 16, with these allowable exceptions:

VM0049 ('Carbon Capture and Storage'), when used in combination with both VMD0056 ('CO2 Capture from Air (Direct Air Capture)') and VMD0058 ('CO₂ Storage in Saline Aquifers and Depleted Hydrocarbon Reservoirs')

- VCUs issued to geological carbon storage activities that are not safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects²⁷.
- VCUs issued to activities using methodologies for which g) the programme, its methodology developers and/or activity proponents have not quantitatively demonstrated in publicly available information that the baseline(s) resulting from the methodology's use are set below the business-as-usual level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity.
- Activities that calculate the fraction of non-renewable h) biomass according to the Clean Development Mechanism's TOOL 30.

²⁶ According to estimates specified at the time of activity registration.

²⁷ ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values, Section 11.1.

- i) VCUs issued to project-level activities, including projects following the VCS Jurisdictional and Nested REDD+ (JNR) framework, that are developed in REDD+ countries²⁸ and utilize methodologies within the programme's Sectoral Scope 14 and are estimated²⁹ to generate greater than 7,000 Verified Carbon Units (VCUs) / annum individually or grouped with these allowable exceptions:
 - a. VCUs issued to project-level activities under a jurisdictional programme following Scenario 2a of the VCS JNR framework.
 - b. VCUs issued under a jurisdictional programme following Scenario 3 of the VCS JNR framework.
 - c. VCUs issued to project-level activities that utilize one of the following methodologies: VM0012, VM0017, VM0021, VM0022, VM0024, VM0026 (and VMD0040), VM0032, VM0033, VM0036, VM0041, VM0042.
- 4.3.5.16 TAB also recommends making consequential amendments to the Part II of the ICAO document "CORSIA Eligible Emissions Units":

(e) VCUs that utilize methodologies AMS-II.G and/or VMR0006

e) VCUs issued to activities that utilize methodologies from within the programme's Sectoral Scope 16, with these allowable exceptions:

VM0049 ('Carbon Capture and Storage'), when used in combination with both VMD0056 ('CO2 Capture from Air (Direct Air Capture)') and VMD0058 ('CO2 Storage in Saline Aquifers and Depleted Hydrocarbon Reservoirs')

f) VCUs issued to geological carbon storage activities that are not safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects³⁰.

Further actions requested of the programme

4.3.5.17 TAB recommends that the Council requests VCS to undertake the following further actions, which do not need to be taken prior to adding VCS to section III of the ICAO document titled "CORSIA Eligible Emissions Units":

²⁸ Referring to countries that are pursuing elements of REDD+ as defined in key decisions relevant for reducing emissions from deforestation and forest degradation in developing countries (REDD+), including the Warsaw Framework for REDD+.

²⁹ According to estimates specified at the time of activity registration.

³⁰ ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values, Section 11.1.

- a) establish (or clarify) applicability of conflict-of-interest rules and procedures to any third parties or panels providing technical advice to the programme in the review, update or approval of methodologies or activities; in particular, procedures for identifying and isolating real or perceived conflicts of interest, consistent with the Guidelines for Criteria Interpretation pertaining to conflicts of interest;
- b) develop and communicate to TAB, in response to a 2026 TAB call for submissions of potentially material programme change notification forms, written evidence of the programme's plans for the long-term administration of multi-decadal programme referred to in the Programme Longevity guideline, including information necessary to support the TAB's understanding of how the programme has considered providing for the continuity of multi-decadal programme responsibilities and of the status and ownership of registry assets, for example a business continuity plan;
- c) establish procedures to ensure that all activities generating CORSIA Eligible Emissions Units for geological carbon storage are safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects³¹;
- d) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions of potentially material programme change notification forms, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the *Environmental Technical Manual*, Volume IV³², preferably as discrete data that is column-separated, searchable and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx:
- e) put in place procedures for the programme, its methodology developers and/or activities to quantitatively demonstrate in publicly available information that the baselines resulting from the use of programme methodologies are set below the *business-as-usual* level of emissions or, for non-traditional activities (e.g. jurisdiction-scale programs, novel carbon dioxide removal), that baselines will deliver equivalent outcomes that avoid over-estimating mitigation from an activity.
- f) at the soonest opportunity, publish and provide to TAB information accompanying the nonpermanence risk assessment that identifies the assumptions, formulas, sources and other bases underpinning the tool's generalized scores and scales;

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³¹ Ibid

³² Doc 9501 — Environmental Technical Manual, Volume IV

- g) in the upcoming revision to the VCS' procedures for the avoidance of double-claiming:
 - i. update VCS' procedures related to the contents of host country attestations to include all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5;
 - ii. reincorporate provisions from previous version(s) of the programme guidance that include a host country declaration of the avoidance of double-claiming in the expected attestation contents; and
 - iii. further elaborate the timing and specific processes by which the programme will compare countries' accounting for emissions units in national emissions reports against the volumes of eligible units issued by the programme and used under the CORSIA, for example to indicate the reports to be monitored and sequencing of steps to be taken by the programme; and
- h) put procedures in place for VCS to (1) periodically monitor formal developments related to any CDM methodologies, processes and institutions, requirements and/or tools that are incorporated into the programme or referenced in its programme documents, (2) respond to substantive updates, revisions or other changes to those CDM contents, including as they are transitioned to the PACM, such that the relevant programme activities can use contents that are being actively governed and maintained, where available, for example at the time of a new activity's registration or an existing activity's soonest crediting period renewal, and (3) maintain a public compilation of any such actions or decisions taken thereon, which may be requested by TAB to inform its understanding of the status of these contents. This information could include, for example, a list of the CDM and/or PACM contents in use, and any programme plans or updates in relation to these.

Assessments for the CORSIA first phase (2024-2026 compliance period)

4.3.6 **Programmes recommended for immediate eligibility**

- 4.3.6.1 In this report, TAB recommends the following two programmes for approval as immediately eligible to supply CORSIA Eligible Emissions Units for the first phase (2024-2026 compliance period):
 - 1. Isometric
 - 2. Premium Thailand Voluntary Emission Reduction Program (Premium T-VER)

4.3.7 **Isometric**

4.3.7.1 In light of the Isometric's procedural updates submitted in March 2025 for assessment in TAB's 2025 material change assessment cycle (MCA/2025), TAB recommends that the Isometric should be eligible to supply CORSIA Eligible Emissions Units for the 2024-2026 compliance period, and to add this programme to section II of the ICAO document titled "CORSIA Eligible Emissions Units.

Background on programme status

4.3.7.2 In April 2024, Isometric first applied for assessment by the TAB for eligibility to supply CORSIA Eligible Emissions Units for the first phase (2024-2026 compliance period). Council approved

TAB's recommendation that Isometric be conditionally eligible for the first phase (2024-2026 compliance period) in November 2024, pending Isometric's implementation of Further actions requested of the programme (TAB Report dated August 2024) by the Council.

4.3.7.3 In March 2025, Isometric submitted material changes for TAB assessment in response to the Council decision from November 2024.

Summary of material procedural updates

4.3.7.4 In March 2025, Isometric submitted updates (as "material changes") to programme procedures designed to address the further actions requested by Council described in para 4.3.10.4 of TAB Report dated August 2024, for TAB to assess and make recommendations to Council as necessary to finalize the conditional eligibility for first phase (2024-2026 compliance period).

General findings

- 4.3.7.5 TAB found that the Isometric's procedures, standards and related governance arrangements that were in place and assessed by TAB in 2024, supplemented by material changes submitted for TAB's assessment in March 2025, were largely consistent with the contents of the EUC as TAB applied them in its assessments for the first phase (2024-2026 compliance period), for emissions units generated under the programme from 1 January 2021 through 31 December 2026 that are within the programme-specific eligibility parameters set out below. This assessment was made on the basis of programme revisions shared in writing and discussed with TAB.
- 4.3.7.6 TAB found that Isometric demonstrated technical consistency with most, but not all, contents of the criterion <u>Programme Governance</u>, in relation to this criterion's guidelines for *Programme administrator and staff conflicts of interest*. This common finding is discussed in section 4.4 (Criteria Interpretations) and informed the further actions requested of the programme below.
- 4.3.7.7 TAB found that Isometric demonstrated technical consistency with most, but not all, contents of the criteria <u>Carbon offset credits must be quantified, monitored, reported, and verified, Do no net harm and Safeguard Systems,</u> in respect of novel CDR activity types. This common finding is discussed in section 4.4 (Criteria Interpretation) and informed the programme-specific eligibility parameters and further actions requested below.
- 4.3.7.8 TAB found that Isometric demonstrated technical consistency with some but not all provisions of the criterion Permanence, particularly in relation to the *Risk Assessment* guideline. TAB noted that the assumptions, sources of data or analysis, or formulas that underpinned the calibration of some key indicators, ranges, and how they are used, were insufficiently transparent for TAB to conclude that the tool supports a risk assessment that "accounts for, inter alia, any potential causes, relative scale, and relative likelihood of reversals". Similar findings apply to protocol- or module-specific risk assessment tools and informed the further actions requested of the programme. TAB also discussed the programme's reversal risk buffer, which is un-pooled—a design discussed in section 4.4.5.4 (Criteria Interpretations) of the TAB Report dated August 2024. TAB observed that those interpretations pertaining to un-pooled buffer accounts were mitigated in Isometric's case by two factors: first, by the negligible reversal risk associated with the activity types/protocols recommended for inclusion in the programme's scope of eligibility, below; second, by the programme's explicit commitment to fully compensate for any reversal of mitigation issued as CORSIA-eligible emissions units, including in the instance that a reversal event exceeds the project proponents' buffer pool contribution. TAB will continue to monitor the effectiveness and sufficiency of this combination of risk management approaches and encourages Isometric to do likewise. TAB also

resolved to continue to assess the programme's methodological tools supporting reforestation activities and implications of the buffer design in these cases, for consideration at a future meeting.

4.3.7.9 TAB found that the programme demonstrated technical consistency with most, but not all, contents of the criterion Carbon offset credits must be based on a realistic and credible baseline, taking into account TAB's interpretation that "conservative" means that procedures should provide for baselines that are set "in a conservative way and below the *business-as-usual* emissions projections". This common finding is further discussed in Section 4.4 of the TAB Report dated January 2023 and informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.7.10 *Scope*: Isometric submitted for TAB's assessment all activity types and scales, unit types, methodologies and procedural categories supported by the programme. TAB recommends the following *Scope of eligibility* to be added to Part II of ICAO document titled "CORSIA Eligible Emissions Units":

Isometric

Scope of eligibility

Isometric Credits including any additional certifications, that have been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming, and with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

- a) Isometric Credits issued to geological carbon storage activities that are not safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects³³.
- b) Isometric Credits issued in respect of carbon dioxide removals that have not been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming³⁴.
- c) Isometric Credits issued to activities that utilize protocols in the categories 'Biomass Carbon Removal and Storage', <u>with</u> these allowable exceptions:

The protocol 'Biochar Production and Storage' when used in combination with the modules 'Biochar Storage in Agricultural Soils' and/or 'Biochar Storage in the Built Environment

d) Isometric Credits issued to activities that utilize protocols in the category 'Direct Air Capture, with these allowable exceptions:

³⁴ Refers to the "Host country attestation to the avoidance of double-claiming" guideline for interpretation of the "Only counted once towards a mitigation obligation" criterion, in *Application Form Appendix A - Supplementary Information*, paragraph 3.7.

³³ <u>ICAO document – CORSIA Methodology For Calculating Actual Life Cycle Emissions Values</u>, Section 11.1.

The protocol 'Direct Air Capture' when used in combination with the modules 'CO2 Storage in Saline Aquifers' and/or 'CO₂ Storage via Carbonation in the Built Environment'

- e) Isometric Credits issued to activities that utilize protocols in the categories 'Enhanced Weathering', 'Mineralization', 'Marine' or 'Reforestation', or any other category not listed as an exception above.
- f) Isometric Credits issued to activities that have not reported their sustainable development contributions or cobenefits or according to default list(s) of sustainable development criteria that Isometric clearly identifies for such use.

Further actions requested of the programme

- 4.3.7.11 TAB recommends that the Council requests Isometric to undertake the following further actions, which do not need to be taken prior to adding Isometric to section II of the ICAO document titled "CORSIA Eligible Emissions Units":
 - a) establish (or clarify) the applicability of conflict-of-interest rules and procedures to any third parties or panels providing technical advice to the programme in the review, update, or approval of protocols, modules, or activities; in particular, procedures for identifying and isolating real or perceived conflicts of interest, consistent with the Guidelines for Criteria Interpretation pertaining to conflicts of interest;
 - b) establish procedures to ensure that all activities generating CORSIA Eligible Emissions Units for geological carbon storage are safeguarded by regulatory frameworks consistent with the Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects³⁵;
 - c) no later than submitting a new application for TAB's assessment of eligibility for the 2027-2029 compliance period, demonstrate that programme procedures provide for baselines that are set in a conservative way and below the *business-as-usual* emissions projections, noting that non-traditional methods for baseline-setting (e.g. jurisdiction-scale programs, novel carbon dioxide removal) should deliver equivalent outcomes that avoid over-estimating mitigation from an activity;
 - d) publish and provide to TAB information accompanying the reversal risk questionnaire that identifies the assumptions, formulas, sources and other bases underpinning the tool's generalized scores and scales; the same information should be provided in relation to any other permanence risk assessment tool(s) provided for use under the programme;
 - e) put in place programme procedures or policies that clarify the nature of ownership and management of buffer pool credits, including to identify the entity(ies) or individual(s) responsible for and effecting and confirming their cancellation in the case of a reversal, and processes for doing so:

³⁵ ICAO document - CORSIA Methodology For Calculating Actual Life Cycle Emissions Values, Section 11.1.

- f) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions of potentially material programme notification form, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the *Environmental Technical Manual*, Volume IV³⁶, preferably as discrete data that is column-separated, searchable, and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx; and
- g) update procedures related to the contents of host country attestations where needed to ensure that procedures cover all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5.

4.3.8 Premium Thailand Voluntary Emission Reduction Program (Premium T-VER)

4.3.8.1 In light of the Premium T-VER's procedural updates submitted in March 2025 for assessment in TAB's 2025 material change assessment cycle (MCA/2025), TAB recommends that the Premium T-VER should be eligible to supply CORSIA Eligible Emissions Units for the 2024-2026 compliance period, and to add this programme to section II of the ICAO document titled "CORSIA Eligible Emissions Units.

Background on programme status

- 4.3.8.2 The Premium T-VER programme was created by the Government of Thailand in 2023, based in part on feedback from TAB's assessment of the original T-VER programme during TAB's 2019 assessment cycle³⁷.
- 4.3.8.3 Premium T-VER first applied for assessment by the TAB in March 2023. In November 2023, the Council accepted TAB's recommendation that Premium T-VER should be eligible for first phase (2024-2026 compliance period), pending programme's implementation of further actions requested by the Council.
- 4.3.8.4 In April 2024, Premium T-VER submitted procedural updates for TAB's material change assessment and in November 2024, the Council reaffirmed its decision that Premium T-VER should be conditionally eligible for the first phase and updated the list of *Further actions requested of the programme* (see TAB Report dated November 2024).

Summary of material procedural updates

³⁶ Doc 9501 — Environmental Technical Manual, Volume IV

³⁷ See section 4.2.1.2 of TAB's January 2020 Report to Council (Appendix B to the CWP-15001)

4.3.8.5 In March 2025, the Premium T-VER submitted updates (as "material changes") to programme procedures designed to address some of the further actions requested by Council described in para 4.3.11.5 of the TAB Report dated August 2024, for TAB to assess and make recommendations to Council as necessary to finalize the conditional eligibility for first phase (2024-2026 compliance period).

General findings

- 4.3.8.6 TAB found that the Premium T-VER's procedures, standards and related governance arrangements that were in place and assessed by TAB in 2024, supplemented by material changes submitted for TAB's assessment in March 2025, were largely consistent with the contents of the EUC as TAB applied them in its assessments for the first phase (2024-2026 compliance period), for emissions units generated under the programme from 1 January 2021 through 31 December 2026 that are within the programme-specific eligibility parameters set out below. This assessment was made on the basis of programme revisions shared in writing and discussed with TAB.
- 4.3.8.7 TAB found that Premium T-VER demonstrated technical consistency with most, but not all, contents of the criterion <u>Transparency and Public Participation Provisions</u>, specifically in relation to the programme's procedures guiding how public comments and findings from stakeholder consultations are considered and disclosed. This finding informed the further actions requested of the programme below.
- 4.3.8.8 TAB found that the Premium T-VER demonstrated technical consistency with most, but not all, contents of the criterion <u>Are additional</u>. TAB reiterated its criteria interpretations contained in the TAB Report dated August 2024, pertaining to criteria for <u>Additionality</u>, <u>Realistic and credible baselines</u> and <u>Leakage</u>, in respect of activities involving grid-connected renewable electricity generation/supply, which informed the programme-specific eligibility parameters below.
- 4.3.8.9 TAB found that Premium T-VER demonstrated technical consistency with most, but not all, contents of the criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u>, taking into account TAB's interpretation that "conservative" means that procedures should provide for baselines that are set "in a conservative way and below the *business-as-usual* emissions projections". This common finding is further discussed in Section 4.4 of the TAB Report dated January 2023 and informed the further actions requested of the programme below.
- 4.3.8.10 TAB found that Premium T-VER demonstrated technical consistency with most, but not all, provisions of the criterion <u>Only counted once toward a mitigation obligation</u>, specifically in relation to this criterion's guidelines for *Reconciliation of double-claimed mitigation*. This finding informed the programme-specific eligibility parameters and further actions requested of the programme below.
- 4.3.8.11 TAB discussed the programme's procedures for responding to developments in the transition of Clean Development Mechanism (CDM) methodological elements and activities to the Paris Agreement Crediting Mechanism (PACM), as discussed in Section 4.4 of the TAB Report dated September 2023. TAB found that these developments could affect the programme's ability to demonstrate technical consistency with some or all of the several criteria referenced in that report; this finding informed the further actions requested of the programme below.

Programme-specific eligibility parameters

4.3.8.12 *Scope:* Premium T-VER submitted for TAB's assessment most of its activity types and scales, unit types, methodologies and procedural categories supported by the programme. TAB

recommends the following *Scope of eligibility* to be added to Part II of ICAO document titled "CORSIA Eligible Emissions Units":

Premium Thailand Voluntary Emission Reduction Program (Premium T-VER)

Scope of Eligibility:

Carbon Credits from the Premium T-VER Standard, including any additional certifications that:

have been authorized by the host country for use in CORSIA by way of an attestation to the avoidance of double-claiming and

for which the programme has verified, in accordance with its procedures, that the corresponding adjustment has already been applied and fully reflected in the host country's biennial transparency report (BRT).

And with the exclusion of the following activity and/or unit types, methodologies, programme elements and/or procedural classes:

- a) Carbon Credits from the 'Standard T-VER' or 'JCM' standards
- b) Carbon Credits issued to activities that utilize methodologies within Sectoral Scope 16: "Capture, storage, and/or utilization of greenhouse gas"
- c) Credit Credits issued to activities that utilize methodologies within the programme's Sectoral Scope 14 and are estimated³⁸ to generate greater than 7,000 Carbon Credits / annum individually or grouped with **these allowable exceptions**:

T-VER-P-METH-13-04 (Mangroves/Seagrass), T-VER-P-METH-13-06 (Agriculture).

d) Carbon Credits issued to activities involving grid-connected renewable electricity generation/supply that are estimated ³⁹ to have a maximum output capacity greater than 15 megawatt of electricity, individually or grouped.

Further actions requested of the programme

- 4.3.8.13 TAB recommends that the Council requests Premium T-VER to undertake the following further actions, which do not need to be taken prior to adding Premium T-VER to section II of the ICAO document titled "CORSIA Eligible Emissions Units":
 - a) formalize and disclose Premium T-VER's existing practices for what information is captured and made available to different stakeholders, and update these and/or related procedures to enable disclosure by the programme, its methodology developers, and/or activity proponents, of

³⁸ According to estimates specified at the time of activity registration.

³⁹ Ibic

how public comments or the inputs from stakeholder consultations are considered, i.e. are taken into account in any refinement of the new or revised programme element undergoing consultation;

- b) implement updates to the programme registry as necessary to fulfil the functions listed below, and to evidence such updates by re-submitting the *Programme Registry Attestation Part A* (signed), as well as the *Programme Registry Attestation Disclosure Form*, in response to a 2026 TAB call for submissions of potentially material programme change notification forms, including to:
 - i. enable the clear recording and tracking of information referred to in each field in Table A5-7 of Annex 16, Volume IV, taking into account the relevant guidance in the *Environmental Technical Manual*, Volume IV⁴⁰, preferably as discrete data that is column-separated, searchable and downloadable—including, in particular, field(s) indicating the compliance period(s) for which a batch of emissions units is eligible, the unique identifier of the account where a batch was cancelled, and the start date of the activity's first crediting period;
 - ii. enable the registry to generate report(s) containing the information in paragraph a) upon request of the CORSIA participant account holder or participant's designee; and
 - iii. ensure that the information in i) is provided in a user-friendly format; is available at no cost and with no credentials required; is capable of being searched based on data fields; and can be downloaded in a machine-readable format, e.g. .xlsx;
- c) no later than submitting a new application for TAB's assessment of eligibility for the 2027-2029 compliance period, demonstrate that programme procedures provide for baselines that are set in a conservative way and *below the business-as-usual* emissions projections, noting that non-traditional methods for baseline-setting (e.g. jurisdiction-scale programs, novel carbon dioxide removal) should deliver equivalent outcomes that avoid over-estimating mitigation from an activity;
- d) publish and provide to TAB information accompanying the Non-permanence Risk Report that identifies the assumptions, formulas, sources and other bases underpinning the tool's generalized scores and scales; the same information should be provided in relation to any other permanence risk assessment tool(s) provided for use under the programme
- e) update procedures related to the contents of host country attestations where needed to ensure that procedures cover all contents specified in the Guideline *Host country attestation specifications*, in particular for the specification of the eligible CORSIA compliance period(s), as well as the required elements listed in decision 4/CMA.6, paragraph 5; and
- f) put procedures in place for Premium T-VER to (1) periodically monitor formal developments related to any CDM methodologies, processes and institutions, requirements, and/or tools that are incorporated into the programme or referenced in its programme documents, (2) respond to substantive updates, revisions, or other changes to those CDM contents, including as they are transitioned to the PACM, such that the relevant programme activities can use contents that are being actively governed and maintained, where available, for example at the time of a new activity's registration or an existing activity's soonest crediting period renewal, and (3) maintain a public compilation of any such actions or decisions taken thereon, which may be requested by TAB to inform its understanding of the status of these contents. This information could include, for example, a list of the CDM and/or PACM contents in use, and any programme plans or updates in relation to these.

⁴⁰ Doc 9501 — Environmental Technical Manual, Volume IV

4.3.9 **Programmes invited to reapply**

- 4.3.9.1 In this report, TAB recommends that Cercarbono be invited to submit an application for TAB's assessment to supply CORSIA Eligible Emissions Units for the CORSIA's second phase (2027-2029 compliance period) and potentially its first phase (2024-2026 compliance period), as explained in paragraph 4.1.1.5 of this report.
- 4.3.9.2 In light of the Cercarbono's procedural updates submitted in March 2025 for assessment in TAB's 2025 material change assessment cycle (MCA/2025), TAB recommends to the Council that this programme should continue to be conditionally eligible for the first phase (2024-2026 compliance period) as decided by the Council at its 233rd Session.
- 4.3.9.3 The specific findings by TAB in terms of criteria consistency and areas for further developments are discussed below. TAB will consider assessing this programme once changes to the programme procedures are in place and the programme provides such information to the TAB in line with a future call for applications.

Background on programme status

- 4.3.9.4 During its 2023 Assessment Cycle, the TAB found that Cercarbono demonstrated technical consistency with some, but not all, contents of the criterion <u>Program governance</u>; <u>Additionality</u>; <u>Avoidance of double counting</u>, issuance and claiming; and <u>Only counted once towards a mitigation obligation</u>. These findings informed the TAB recommendation that the Council designation of CERCARBONO should be approved as conditionally eligible for the first phase (2024-2026 compliance period), pending the completion of further actions as described in paragraph 4.3.4.5 of the TAB report dated August 2023 presented to the ICAO Council 230th Session, and cited below:
- "4.3.4.5 TAB recommends that the Council requests Cercarbono to undertake the further actions in paragraphs (a) to (d) below, which Cercarbono is invited to submit for TAB to assess and make recommendations to the Council as necessary to finalize the conditional eligibility for the first phase of units issued under these programme elements:
 - a) Put in place a complete plan for the long-term administration of multi-decadal programme elements, in particular for emissions units issued, held, and/or cancelled/retired on the registry and associated documentation of the activities and ownership, which includes possible responses to the dissolution of the programme in its current form;
 - b) Clearly state in the Cercarbono standard and procedures that the programme's legal additionality requirements supersede any exemptions contained in methodologies or methodological standards in use by Cercarbono, such as for situations where legally binding mandates are systematically not enforced and/or non-compliance is widespread;
 - c) Put procedures in place for Cercarbono to (1) periodically monitor formal developments related to any CDM methodologies, processes and institutions, requirements, and/or tools that are incorporated into the programme or referenced in its programme documents, (2) respond to substantive updates, revisions, or other changes to those CDM contents, as appropriate, to maintain the programme's coherence and effectiveness, and (3) publicly report any actions or decisions taken thereon.
 - d) Develop and put into place a complete suite of procedures necessary to prevent double-claiming, consistent with the criterion Only counted once towards a mitigation obligation and the relevant guidelines, mindful of TAB's considerations and analysis contained in the document Clarifications of TAB's Criteria interpretations⁴¹."

⁴¹ https://www.icao.int/sites/default/files/environmental-protection/CORSIA/Documents/TAB/Clarifications March-2025.pdf

Summary of material procedural updates

4.3.9.5 In March 2025, Cercarbono submitted updates (as "material changes") to programme procedures designed to address the further actions requested by Council described in para 4.3.8.12 of the TAB Report dated August 2024, for TAB to assess and make recommendations to Council as necessary to finalize the conditional eligibility for first phase (2024-2026 compliance period).

General findings

- 4.3.9.6 During the 2025 Assessment Cycle, TAB assessed new or updated procedures by Cercarbono which were developed in response to further actions necessary to finalize the conditional eligibility for the first phase, and which were communicated to the TAB in March 2025.
- 4.3.9.7 TAB recommends that eligibility decisions regarding Cercarbono should not be taken at this time. TAB found that Cercarbono's procedures, standards and related governance arrangements that were in place and assessed by TAB in 2025 were partially consistent with the contents of the EUC, for emissions units generated under the programme for mitigation that occurred from 1 January 2021 onwards. In particular, TAB found that Cercabono's procedures for preventing double-claiming demonstrated technical consistency with some, but not all, contents of the criterion Only counted once towards a mitigation obligation and the relevant guidelines.

Further actions requested of the programme

- 4.3.9.8 TAB recommends that the Council requests Cercarbono to undertake the following further actions, described in paragraphs (a) to (c) below, which Cercarbono is invited to submit as part of a complete application for the CORSIA second phase, 2027-2029 compliance period, for TAB to assess and make recommendations to Council as necessary to finalize the conditional eligibility of units issued under these programme elements:
 - a) update its procedural guidance for preventing double-claiming on aspects related to the host country authorization of the use of mitigation units for international mitigation purposes, and the application of corresponding adjustments for the first transfer of such units;
 - b) update its procedural guidance for preventing double-claiming on aspects related to host countries agreeing to account for any offset units issued as a result national accounting of mitigation units for international mitigation purposes, first transfer, considering *Clarifications of TAB's criteria interpretation*, in particular in relation to double-claiming procedures; and
 - c) update its procedural guidance for preventing double-claiming clarifying the treatment of emission units where mitigation is not counted toward national target(s) / pledge(s) / mitigation contribution(s) / mitigation commitment(s), and the need to apply corresponding adjustments.
- 4.3.9.9 TAB would like to encourage Cercarbono to re-engage in TAB's assessment process once it is confident that its procedures are in a steady state and meet all of the EUC. TAB will assess the programme again once changes to the programme procedures are in place, corresponding to the requests listed in paragraph 4.3.9.8 above, and the programme provides such information to TAB in line with a future call for applications.

4.3.10 Programmes that remain under assessment

- 4.3.10.1 In this report, TAB recommends that the following two programmes remain conditionally eligible for the first phase (2024-2026 compliance period); TAB intends to conclude its assessment of material procedural changes submitted by these programmes for consideration at its 22nd meeting (January 2026) and to provide updates to the Council in due course:
 - 1. Forest Carbon Partnership Facility (FCPF)
 - 2. BioCarbon Fund Initiative for Sustainable Forest Landscapes (ISFL)

4.3.11 Future call for applications for the CORSIA second phase, 2027-2029 compliance period

4.3.11.1 Programmes not yet fully eligible for the first phase are invited to newly apply in February 2026 for the 2027-2029 compliance period. TAB will present its recommendations thereon in October/November 2026. Successful programmes may also be recommended retroactively for the first phase (2024-2026 compliance period).

4.4 CRITERIA INTERPRETATIONS

4.4.1 **Background**

- 4.4.1.1 The following discussions were undertaken by TAB Members to agree on interpretations of the EUC or their guidelines, in order to find consensus on TAB recommendations, presented in this report. Where TAB discussed and agreed to specific interpretations in order to apply a criterion or guideline to the wide variety of programmes assessed, this section also presents those interpretations.
- 4.4.1.2 TAB reaffirmed the relevance of Criteria interpretations in successive TAB Reports, which are compiled into a document titled Clarifications of TAB's Criteria Interpretations Contained in TAB Reports and published on the TAB website for transparency. Reflecting on this work, TAB noted with appreciation that programmes continue to make progress in enhancing their procedures to bring them more clearly in line with the EUC. TAB looks forward to reviewing this continuing progress during its forthcoming assessment cycles.

4.4.2 Criterion: <u>Programme Governance</u>

4.4.2.1 TAB has observed that some programmes are increasingly drawing on the expertise of third-party experts (for example, independent consultants, expert bodies or panels) to undertake technical reviews of methodologies, methodological tools, or activities, and to inform or recommend programme decisions thereon. TAB notes that programme administrators or programme staff are often assumed to be chiefly responsible for these functions. Criteria such as Must be Additional clearly confer responsibility to the programme to review and approve such programme elements; this responsibility is safeguarded by elements under the Programme Governance criterion that addresses conflicts of interest for individuals directly employed by or governing a programme. Given that the third-parties described above are performing functions that the EUC expect to be performed "by the programme", TAB considers it critical that such expertise is underpinned by the same safeguards against partiality or bias that are provided for through conflict of interest provisions that apply to programme staff, administrators and board members who presently perform similar functions or did so in the past.

4.4.2.2 TAB also acknowledged the carbon markets' seemingly growing reliance on emissions unit certification programmes to reinforce their certifications with programme-level commitments or guarantees of unit quality or availability. These include, for example, programme commitments to directly purchase and cancel emissions units in instances of credit risk pool insufficiency, or to accommodate increasingly long-term monitoring commitments for issued removals credits from some activity types. TAB acknowledged that the professional liability insurance coverage of at least USD\$5M referred to in this criterion's *Liability Coverage* guideline may merit re-evaluation—in particular, analysis that reflects on these expanded obligations or commitments.

4.4.3 Criterion: Offset Credit Issuance and Retirement Procedures

- 4.4.3.1 TAB recalled that the 220th Session of the ICAO Council (June 2020) approved the CORSIA Eligible Emissions Unit Programme Registry Attestation, along with procedures for its use, to facilitate aeroplane operators' implementation of the SARPs contained in Annex 16, Volume IV, for the cancellation of CORSIA eligible emissions units and reporting thereon. Those procedures include periodic review by TAB of the status of each programme's registry in relation to the requirements contained in the Registry Attestation, based on a form submitted by each programme to describe how its registry fulfils the requirements of the Attestation. The programme must submit this form, along with an Attestation signed by the programme and the programme registry's administrator(s), in the programme's response to a call for applications. These materials must be updated and resubmitted as necessary to maintain up-to-date information.
- 4.4.3.2 TAB undertakes these Registry Attestation reviews in conjunction with its assessment of new applications or reapplications, which also involves assessing the programme registry's functionalities and registry-related programme procedures and governance arrangements for consistency with registry-related criteria⁴². In its 2025 reassessment, TAB found that several emissions units programmes were in the process of, or were considering, updating their registry systems or administrative arrangements for the registry to fulfil all the requirements in the Attestation.
- 4.4.3.3 In light of those pending updates, TAB wishes to note its common finding of inconsistencies with the Attestation requirements and/or with the registries-related EUC. This was notably the case for registry data / fields and downloadable cancellation report formats that, in their current form, would not support aeroplane operators to fully implement the CORSIA SARPs for emissions unit cancellations and reports (EUCRs) and their verification. TAB observed that some registries provide for operators to reflect some of the information required in Annex 16, Volume IV, Table A5-7, in an open text field. This meets the letter of the requirements but requires operators to hand-code some EUCR data, posing an integrity risk to this data when it is aggregated at a global scale in the CORSIA Central Registry (CCR).
- 4.4.3.4 For this reason, the requested further actions arising from the 2025 reassessment include, inter alia, addressing the most common missing registry data / fields (preferably in a column-separated, downloadable format): (a) the CORSIA compliance periods for which emissions units are eligible, (b) the start date of the activity's first crediting period, and (c) the unique identifier of the registry account where

⁴² TAB has previously assessed the consistency of programme registry procedures, functionalities, and arrangements, for consistency with the following criteria and their guidelines for interpretation: Offset Credit Issuance and Retirement Procedures (all guidelines); Identification and Tracking (all guidelines); Legal Nature and Transfer of Units; Programme Governance (including the guideline *Programme longevity*); Transparency and Public Participation Provisions; Avoidance of Double Counting, Issuance and Claiming; Carbon offset credits must be quantified, monitored, reported, and verified (including the guideline *Identification of units issued ex ante*); Carbon offset credits must have a clear and transparent chain of custody within the offset programme; Permanence (including guidelines for *Extent of compensation provisions, Reversal notification and liability*, and *Replacement unit eligibility*); and Are only counted once towards a mitigation obligation (all guidelines).

the emissions units were cancelled for compliance; also, optionally, (d) the unique identifier of the registry account where the emissions units cancellation was initiated. TAB observed that the account identifier in (d) may be relevant to regulatory systems wherein compliance is demonstrated by transferring a unit to a regulator-administered registry account, where it is surrendered and effectively cancelled; (d) may be less relevant to independent registry systems where emissions units are commonly cancelled in a single account that also performs a range of other functions. Thus, TAB understands that, depending on the registry, only one identifier may be necessary and relevant, such that "(d)" is optional. TAB also wishes to note that the unique identifiers for registry accounts are not required to be publicly disclosed.

4.4.3.5 These TAB discussions and recommendations are intended to confirm market readiness for supporting CORSIA's first phase requirements. A CORSIA Eligible Emissions Unit Programme registry can provide registry services to aeroplane operators prior to the programme and programme registry administrators' demonstration of the registry's consistency with the Attestation requirements. However, the programme registry can only facilitate and identify emissions unit cancellations specifically for CORSIA use and support any related reporting and verification activities and promote itself as being capable of providing registry services for those purposes *after* the programme demonstrates the programme's and programme registry's consistency with the requirements in the Registry Attestation and the signed attestation is published on the CORSIA website and (c) the programme registry is identified in the ICAO document "CORSIA Eligible Emissions Units".

4.4.4 Criterion: Realistic and credible baselines

In relation to activities involving household device distribution

- 4.4.4.1 TAB recalled its discussions since April 2024 regarding the criterion <u>Carbon offset credits</u> must be based on a realistic and credible baseline in the context of activities that reduce or displace the use of non-renewable biomass in household devices⁴³. These discussions have focused on the fraction of woody biomass that can be established as non-renewable biomass (fNRB), while also considering firewood-to-charcoal conversion rates; device adoption, usage and fuel consumption rates; and emissions factors. TAB also noted the February 2025 observations on these matters by the Integrity Council for the Voluntary Carbon Market (ICVCM).⁴⁴
- 4.4.4.2 TAB reflected on recent progress by emissions unit programmes in the continuous improvement of methodologies for activities involving household devices, including in light of the technical challenges identified above. In June 2025, the Executive Board (EB) of the Clean Development Mechanism (CDM) agreed to withdraw its TOOL 30: *Calculation of the fraction of non-renewable biomass*, effective 1 January 2026.⁴⁵ In parallel, Methodological Expert Panel of the Paris Agreement Crediting Mechanism (PACM) continues to discuss possible improvements to the CDM's TOOL 30 as well as to CDM methodologies that have hitherto relied on that tool.⁴⁶ TAB also noted that two other emissions unit programmes are phasing out support for these CDM tool and methodologies, and that one programme has withdrawn and/or recalculated the results of some associated activities.⁴⁷
- 4.4.4.3 Reflecting on these considerations, TAB recalled its finding that continuous improvement is a normal feature of GHG estimation, including in the context of carbon credit markets. In this context,

⁴³ See sections 4.3.3 to 4.3.6 of TAB's March 2025 Report to Council (C-WP/15677) and sections 4.4.1.0 to 4.4.1.5 of its August 2024 report to Council (C-WP/15631)

⁴⁴ https://icvcm.org/wp-content/uploads/2025/03/Board-Observations Cookstoves-and-Biodigesters-FINAL.pdf

⁴⁵ UNFCCC. "CDM Executive Board 125th Meeting" June 11-12, 2025. Paragraph 19-20. Available at (PDF).

⁴⁶ See MEP004 Report, para. 22; MEP005 Report para. 23; MEP007 para. 21.

⁴⁷ Verra, "Verra Cancels 5 Million Overissued Credits Linked to C-Quest Capital" (17 October 2024), available at: https://verra.org/verra-cancels-5-million-overissued-credits-linked-to-c-quest-capital/;

TAB recommends that emissions units issued based on the CDM's TOOL 30 should not be eligible during the 2027-2029 compliance period unless improvements are made to ensure accuracy and conservativeness. TAB further recommends that previous exclusions relating to these methodologies can now be rescinded, in light of the actions taken by the affected programmes to address over-issuance.

4.4.5 Criterion: Carbon offset credits must be based on a realistic and credible baseline

Baseline setting for high-forest low deforestation jurisdictions

- 4.4.5.1 The criterion <u>Carbon offset credits must be based on a realistic and credible baseline</u>, states, among other things, that "[t]he baseline is the level of emissions that would have occurred assuming a conservative 'business as usual' emissions trajectory..." Separately, the criterion <u>Leakage</u> and its guidelines *Scope* and *Leakage Prevention* require that "activities that pose a risk of leakage when implemented at the project-level should be implemented at a national level, or on an interim basis on a subnational level, in order to mitigate the risk of leakage." As noted in TAB's first report to Council (Oct. 2020)⁴⁸, this *Leakage* guideline specifically applies to REDD+ activities as defined in the UNFCCC's Warsaw Framework and related decisions.⁴⁹
- 4.4.5.2 It is common practice for REDD+ programmes to derive crediting baselines from jurisdiction-wide multi-year historical emissions levels, in order to avoid selection biases that can occur when projection models or control areas are used.⁵⁰ However, historical baselines might underestimate emissions trends where deforestation might be increasing, such as in some "HFLD" countries, which have high forest cover and low deforestation rates due to historically sparse population and/or underdevelopment, for example. A variety of techniques have been developed to extrapolate or adjust historical baselines as appropriate to calculate the emissions that would otherwise occur in a *business-as-usual* scenario where the forest faces imminent threats.⁵¹ TAB noted that the rationale for these techniques is similar in principle to that of "suppressed demand" techniques used in other sectors where emissions are historically low due to underdevelopment.⁵²
- 4.4.5.3 Some experts argue that many forests in HFLD jurisdictions do not face imminent threats, such that adjusted HFLD baselines overestimate *business-as-usual* emissions, thereby generating emissions units that do not represent real emissions reductions.⁵³ Other experts respond that many forests in HFLD jurisdictions do indeed face imminent threats and that the newest methods for adjusting historical baselines are appropriately conservative.⁵⁴ TAB noted that a similar debate exists in other sectors regarding baseline-setting in situations of suppressed demand.⁵⁵

⁴⁹ "REDD+" refers to reducing emissions from deforestation and forest degradation in developing countries (REDD) and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks (+)". See the UNFCCC REDD+ platform for more information: https://redd.unfccc.int/fact-sheets/warsaw-framework-for-redd.html

⁵⁰ Graziera, Hamrick and Comstock, "Eligibility Requirements for REDD+ Standards and Financing", *The Nature Conservancy and Conservation International* (May 2021). Available at

⁴⁸ See October 202 TAB Report, section 4.3.8.

https://www.nature.org/content/dam/tnc/nature/en/documents/EligibilityRequirementsforREDDPlus Financing 2021.pdf, page ⁵¹ Teo et al., "Charting the future of high forest low deforestation jurisdictions", PNAS 121, no. 37 (2024), Available at https://www.pnas.org/doi/epub/10.1073/pnas.2306496121; Schweikart, Mertz and Muller, "Adaptive approaches to REDD+ are needed for countries with high forest cover and low deforestation rates", *Environmental Research Letters* 17, no. 11 (2022). Available at https://iopscience.iop.org/article/10.1088/1748-9326/ac9827.

⁵² See discussion on suppressed demand in September 2022 TAB Report, section 6.5.13 to 6.5.17.

⁵³ Streck et al., "We must protect intact forests, but CORSIA got it wrong" CarbonPulse, April 14, 2022. Available at https://carbon-pulse.com/156727/

⁵⁴ Wildlife Conservation Society et al., "Statement on the credibility of HFLD credits in global carbon markets", *Carbon Pulse*, May 26, 2022. Available at https://carbon-pulse.com/160832/

⁵⁵ Randall Spanding-Fecher, "Suppressed Demand in the Clean Development Mechanism: Conceptual and Practical Issues." Journal of Energy in Southern Africa 26 (2015).

- 4.4.5.4 TAB has recommended one programme that uses HFLD baseline-setting techniques as fully eligible for all CORSIA compliance periods to date, as well as another such programme as conditionally eligible for the first phase. A few TAB experts expressed the view that HLFD procedures currently in use do not provide for baselines that are set in a conservative and credible manner, such that HFLD approaches should not be considered eligible at this stage.
- 4.4.5.5 In light of the considerations described in in this section, TAB recalled that continuous improvement is a normal feature of GHG estimation, including in the context of carbon credit markets. TAB resolved to continue to apply the EUC in the manner described in its *Criteria interpretations*, to further clarify these interpretations where appropriate, and to monitor continuing progress in the scientific literature and evolving practices for baseline-setting in HFLD jurisdictions, including in relation to the EUC guidelines for programme procedures to ensure that baselines are set in a conservative way and below *business-as-usual*.

4.4.6 <u>Criteria: Safeguards System and No Net Harm</u>

Matters relating to engineered carbon dioxide removal

- 4.4.6.1 TAB recalled its discussion in its September 2024 report to Council regarding novel carbon dioxide removal (CDR) technologies, including *inter alia* biochar, direct air capture with carbon capture and storage (DACCS), bioenergy with carbon capture and storage (BECCS), enhanced weathering (EW), 'blue carbon management'⁵⁶, ocean fertilization and ocean alkalinity enhancement (OAE).
- 4.4.6.2 In this context, TAB recalled the Intergovernmental Panel on Climate Change (IPCC) (2023), which notes that "the deployment of CDR to counterbalance hard-to-abate residual emissions is unavoidable if net zero CO2 or GHG emissions are to be achieved." The report also acknowledges that "[e]nablers of CDR include accelerated research, development and demonstration, improved tools for risk assessment and management, targeted incentives and development of agreed methods for measurement, reporting and verification of carbon flows."⁵⁷
- 4.4.6.3 TAB discussed the current assessment of technology readiness levels (TRL) of the different CDR techniques in the IPCC Sixth Assessment Report, including as summarized in a July 2025 concept note by the UNFCCC Secretariat for the Supervisory Body of the Paris Agreement Crediting Mechanism,⁵⁸ which found that CDR methods with high TRL are appropriate for commercial-scale activities; those with medium TRL are appropriate for pilot and demonstration activities; and those with low TRL are appropriate only for scientific research and development purposes.
- 4.4.6.4 In its 2025 Assessment Cycle, TAB took into consideration these various inputs, alongside information provided by the relevant programmes⁵⁹, in its deliberations on the criteria <u>Safeguards system</u>, <u>Do no net harm</u>, and <u>Carbon offset credits must be quantified</u>, monitored, reported, and verified, and <u>Permanence</u>, to inform its recommendations to Council on matters relating to engineered carbon dioxide removal. In this regard, TAB discussed the interactions between programme procedures involving

⁵⁸ UNFCCC. "Development of additional criteria for safeguards and guiding questions for carbon dioxide removal activities and land use, land-use change and forestry for the Article 6.4 sustainable development tool" Concept note no. A6.4-SBM017-AA-A05 (21 July 2025). Available at https://unfccc.int/documents/648824; page 6.

⁵⁶ This is distinct from peatland and coastal wetland restoration, which is already widely practiced.

⁵⁷ IPCC AR6 WGIII SPM para C.11 first sentence and C.11.1, first sentence.

⁵⁹ Consistent with TAB Procedures for *Assessment Basis and Materials* (paras. 5.4-5.5), noting in particular, "After assessing the information provided by applicants and if/as necessary, TAB may consider additional information collected by TAB members. Such additional information can be gathered from, inter alia, desk research…".

engineered carbon removal activities and ICAO's CORSIA Emissions Unit Criteria and the ways in which programmes would demonstrate consistency with the EUC in respect of these activity types.

- 4.4.6.5 The criterion <u>Do No Net Harm</u> requires that "Offset projects should not violate local, State/provincial, national or international regulations or obligations. Offset programmes should show how they comply with social and environmental safeguards and should publicly disclose which institutions, processes, and procedures are used to implement, monitor, and enforce safeguards to identify, assess and manage environmental and social risks." The criterion <u>Safeguards System</u> also requires that "Programmes should have in place safeguards to address environmental and social risks. These safeguards should be publicly disclosed."
- 4.4.6.6 TAB considered the particular necessity of dedicated environmental and social safeguards for some engineered CDR activity types, to manage risks relating to, *inter alia*, air and water pollution; chemical contamination in water, soils/sediments and organisms; biodiversity and ecosystems; pH, oxygen and nutrient concentrations; energy and water use; and other risks, depending on the specific activity type. TAB acknowledged the interrelationships between environmental and social risks, including in the areas of human health and food and water security.
- 4.4.6.7 TAB noted the importance of legal and regulatory systems to govern engineered CDR activity types—particularly those that involving to infrastructure—and that such systems are in a state of continuous improvement, with different levels of regulatory maturity depending on the activity type and jurisdiction. For example, a few jurisdictions have regulatory frameworks for activities involving geological carbon sequestration, which address all 16 elements of the ICAO Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects supported by established processes for permitting, oversight and monitoring by the competent authority (ies). In some other jurisdictions, no relevant regulations (or regulators) are in place, or regulations are pending legal approval or do not address all those elements. TAB also noted that, with few exceptions, those engineered CDR activities undertaken to date have exhibited a preference for implementation in jurisdictions with more mature regulatory frameworks.
- 4.4.6.8 In TAB's assessment of programme procedures and methods involving marine geoengineering activities, including ocean alkalinity enhancement and biomass cultivation for carbon removal, TAB noted the 2023 statement issued by the governing bodies the London Convention and London Protocol (LCLP), which endorsed scientific recommendations that "such activities other than legitimate scientific research should be deferred." In the case of legitimate scientific research, the LCLP assessment framework states that "economic interests should not influence the design, conduct and/or outcomes" of such activities and there should be no "financial and/or economic gain arising directly from the experiment or its outcomes." TAB recalled that these CDR techniques are currently at a low technology readiness level (see section 4.3 above) and observed that, while the LCLP technically only apply to dumping at sea (e.g., from ships, aircraft, or platforms), its considerations are also relevant to installations

⁶¹ Stephen M. Smith *et al. (eds.s)*, The State of Carbon Dioxide Removal 2024, 2nd edition, Table 10.4 (page 202). Available at https://www.stateofcdr.org

⁶³ ICAO document "CORSIA methodology for calculating actual life cycle emission values", section 11.1

⁶⁰ IPCC AR6 WGIII TS, table TS.7; IPCC AR6 WG1, Figure 5.3.6.

⁶² Recent analysis for the Committee on Aviation and Environment Protection Fuels Task Group indicates that the following jurisdictions have carbon capture and geological storage regulatory schemes containing the necessary elements: Australia (federal), the province of Alberta in Canada, the European Union, the United Kingdom, and the United States.

⁶⁴ International Maritime Organization. London Convention. "Statement on Marine Geoengineering." IMO document LC/17, Annex 4. Adopted October 6, 2023.

⁶⁵ International Maritime Organization. London Convention. Assessment Framework for Scientific Research involving Ocean Fertilization. Adopted October 14, 2020. IMO document LC 32/15, Annex 6. Available at https://docs.imo.org/Shared/Download.aspx?did=63987 (Registration required.)

on land that introduce sequestered carbon and other engineered materials into surface waters and unconfined aquifers.

- A.4.6.9 Reflecting on these considerations, TAB noted that programmes incorporating engineered CDR activity types should have in place and publicly disclose safeguards to address environmental and social risks, in line with the EUC, with full consideration of the technology readiness level of each CDR activity type and of the existing or emerging laws and regulations on CDR. In line with the EUC, the presence of regulatory frameworks governing these activities / types also does not exempt programmes from requiring such activities to establish all necessary safeguards. Rather, programmes' safeguarding provisions should facilitate the identification, minimization, monitoring of, and reporting on environmental and social risks to ensure that CORSIA eligible emissions units are generated via activities that do no net harm. TAB also noted that some engineered removal and/or geological storage activities involve infrastructure, interventions, or diffuse impacts (for example, deep well drilling or repurposing, pipeline transportation, projects involving "open systems"); here, safeguards administered by an emissions unit programme are an insufficient substitute for regulatory frameworks consistent with the ICAO Regulatory Scheme CORSIA Eligibility Requirements for Geological CCS Projects.
- 4.4.6.10 TAB also noted that engineered removal activities storing carbon in a water column or via the modification of oceans physico-chemical conditions would need sophisticated social and environmental safeguards that properly capture the risks and uncertainties of the activity, in particular in relation to the expected or potential impacts in the natural environment (e.g. air, soils, water). Taking into account the findings of the LPLC and the IPCC regarding uncertain environmental risks and low technology readiness levels (see above), TAB considered that any safeguards systems currently in use by programmes under assessment would be insufficient to demonstrate consistency with the criteria <u>Do No Net Harm</u> and <u>Safeguards System</u> were they to be applied to these activity types at this time.

4.4.7 Criterion: Carbon offset credits must be quantified, monitored, reported and verified

- 4.4.7.1 The criterion <u>Carbon offset credits must be quantified, monitored, reported and verified</u> states, among other things, that "[o]ffset credits should be based on accurate measurements and quantification methods/protocols."
- 4.4.7.2 As observed in section 4.4.1.8 of TAB's September 2024 Report to Council, the IPCC, at its 60th Session (January 2024), requested its Task Force on National Greenhouse Gas Inventories to develop a new *Methodology Report on Carbon Dioxide Removal Technologies, Carbon Capture Utilization and Storage* by 2027, as part of the IPCC's Seventh Assessment Cycle. The Task Force aims to, among other things, identify gaps relating to CDR activities within the 2006 IPCC Guidelines on National GHG Inventories and/or identify areas where elaboration of the Guidelines would be desirable.
- 4.4.7.3 In this context, TAB noted that existing IPCC Guidelines do not address carbon sequestration from several engineered CDR activity types, in particular those for which measurement, reporting and verification techniques are relatively new, such that any sequestration achieved by such activities would not necessarily be reflected in national GHG emissions accounting.⁶⁶ TAB also noted that

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⁶⁶ Stephen M. Smith *et al. (eds.s)*, The State of Carbon Dioxide Removal 2024, 2nd edition, Table 10.4 (page 202). Available at https://www.stateofcdr.org

a significant body of research on CDR quantification techniques is ongoing, including on the role of robust measurement, modelling, monitoring, and the use of various technologies to reduce uncertainty. ^{67, 68}

4.4.7.4 Reflecting on these considerations, TAB noted that programmes supporting carbon sequestration activities should have methodologies to measure, report and verify the carbon capture stream and the carbon storage in reservoirs/materials with reasonable accuracy and confidence, based on peer reviewed techniques that are grounded in well-established science. TAB also noted that activities piloting or demonstrating novel quantification techniques should be scaled appropriately to address uncertainty.

4.4.8 **Criterion: Permanence**

- 4.4.8.1 The criterion <u>Permanence</u> states that "Carbon offset credits must represent emissions reductions, avoidance, or carbon sequestration that are permanent. If there is risk of reductions or removals being reversed, then either (a) such credits are not eligible or (b) mitigation measures are in place to monitor, mitigate, and compensate any material incidence of non-permanence."
- 4.4.8.2 The IPCC Sixth Assessment Report (2023) notes that permanence of carbon storage is closely linked to the storage medium. Carbon stored in vegetation or soils has the shortest storage timescales and the highest risk of reversals from human activities or natural disturbances. Carbon stored as biochar in soils, cement and other materials have somewhat longer storage timescales and are less vulnerable to disturbances. Carbon stored in ocean reservoirs and in geological formations generally have the longest storage times, with the latter being potentially permanent.⁶⁹
- 4.4.8.3 TAB noted that appropriate procedures for mitigating and reconciling non-permanence depend on the inherent materiality of reversal risks, which in turn vary by activity type and storage medium. In this regard, TAB noted that the reversal management timeframes set out in the EUC Guidelines⁷⁰ are most relevant to carbon removals from agriculture, forestry and land use (AFOLU). In contrast, the appropriate reversal management timeframes for engineered CDR and biochar activities are generally shorter than for of AFOLU activities, but vary depending on the storage reservoir/medium and recent monitoring results. TAB concluded that it was reasonable to expect programme procedures for reversal management and monitoring to require an engineered CDR or biochar activity to monitor the sequestered carbon until it has verified, consistent with the best available science, that the residual risk of a reversal of removals is demonstrably negligible or non-existent, as are any residual identified risks of negative environmental or social impacts.

⁶⁷ Clarkson, M. et al. "A review of measurement for quantification of carbon dioxide removal by enhanced weathering in soil". Front. Clim., 19 June 2024. Sce. Carbon Dioxide Removal. Vol 6-2024.

https://www.frontiersin.org/journals/climate/articles/10.3389/fclim.2024.1345224/full

⁶⁸ Cautious carbon removal. Nat. Clim. Chang. 14, 549 (2024). https://doi.org/10.1038/s41558-024-02048-5

⁶⁹ IPCC AR6 WG1, Figure 5.3.6 (page 766); IPCC AR6 WGIII, Cross-Chapter Box 8 (page 1261).

⁷⁰ https://www.icao.int/sites/default/files/environmental-protection/CORSIA/Documents/TAB/Programme-Re-application-Form Appendix A Supplementary Information 2025.pdf