

Assessment of the draft technical specifications for certification under the EU CRCF

Permanent carbon removals through DACCS/BioCCS

// Lambert Schneider, Wolfram Jörß, Hannes Böttcher and Florian Krob

Summary of key findings and recommendations

This document provides an assessment of the proposed draft technical specifications for permanent carbon removals through DACCS/BioCCS, dated 1 October 2024. Overall, the methodology identifies and accounts for most relevant emission sources. In its current form, however, it is likely to lead to overestimation of actual removals. We recommend to further improve the methodology, in particular with regard to the following issues:

- No consideration of the emissions impact of expanded use of biogenic resources: The methodology implicitly assumes that the combustion of biogenic fuels would also occur in the baseline scenario. Therefore, the methodology does not account for emissions from biogenic fuels (except where these are used for the CO₂ capture unit). However, it is possible that new bioenergy plants are constructed due to the possibility to capture and permanently store the CO₂ and the reward through the CRCF. Similarly, the amount of biogenic resources used in existing plants could be expanded as a result of the certification. The methodology allows for an expansion of up to [25%] without accounting for the associated emissions impact. Consistent with the practice in many carbon crediting methodologies such as under the CDM, we suggest that for any increase in biomass use beyond the average of the last three years prior to the implementation of mitigation activity the impact of using more biomass would need to be accounted for. Moreover, the methodology should include a procedure to identify the relevant baseline scenario and account for the emissions impact of expanded use of biogenic resources (see our cross-cutting findings).
- Lack of provisions on a full mass balance: The methodology is proposed to be applicable to activities that use common infrastructure. This may include the capture of CO₂ from different sources, different segments of transportation of CO₂, and the injection in geological reservoirs at different points. While the methodology has generally appropriate provisions to identify segments of the infrastructure and refers to an allocation of

emissions, it does not explicitly require establishing a full mass balance that includes all components of the system that belong to the infrastructure used by the credited activity. The methodology should require a full mass balance, including all (non-credited) components of the system used by the certified activity, and elaborate provisions on (i) how a mass balance of the CO₂ flows should be established; (ii) how emissions associated with common infrastructure are allocated to different (credited and non-credited) activities; and (iii) what type of agreements between the users of the infrastructure regarding the allocation should be made and presented together with the certification.

- Use of storage, rather than capture, as the basis for quantifying removals: The methodology determines the amount of CO₂ permanently stored indirectly, by quantifying CO₂ capture and subtracting estimated CO₂ losses from storage and transport (equation 2). As CO₂ losses from transportation and storage are associated with significant uncertainties, it would be more accurate to derive the amount of CO₂ permanently stored based on the amount of CO₂ injected at the relevant injection point(s) and, where common infrastructure is used, allocation of that amount to the different capture facilities. Under the current equations, the total credited amount could exceed the total amount injected and actually permanently stored (if CO₂ losses from storage and transport are underestimated).
- No consideration of public funding: The eligible mitigation activities may also be funded through public funding. If mitigation activities receive both public subsidies and CRCF units, this could artificially lower CRCF unit prices and implicitly subsidise continued fossil fuel use by the buyers of the units. The methodology should either exclude mitigation activities that receive public funding or proportionally attribute the removals or emission reductions to the financial support provided (see our <u>cross-cutting findings</u>).
- No monitoring and accounting for CO₂ leakage after the end of the activity period: The methodology does not address that monitoring of CO₂ leakage from the geological reservoir should continue after the end of the activity period, until the end of the monitoring period. The methodology does also not include any provisions to compensate for CO₂ leakage that is observed in the monitoring period, after the activity period has ended. The storage should only be considered to be permanent once the monitoring period has ended (i.e. after handover of the responsibility for the storage site to a competent governmental authority).
- Unclear biomass sustainability criteria: The reference to RED III criteria for biomass feedstocks should be extended and refer to the eligibility for MS financial support pursuant to RED III Art 3(3c) and to compliance with RED III sustainability criteria pursuant to RED III Art 29 (2) (7); the present reference to RED Art 29 is too vague and insufficient and the methodology seems to be mixing the two RED III provisions.
- Materiality threshold: The proposed materiality threshold is inconsistent with the principle of conservative quantification. The methodology should be revised to include all emission sources or sinks, except where the exclusion is conservative (see our <u>cross-cutting findings</u>).

More detailed and further comments are provided below.



Detailed comments

Section 1: Definitions

- Definition of greenhouse gases: The draft methodology defines greenhouse gases as follows: 'greenhouse gas (GHG)' refers to any greenhouse gas listed in Annex II to Directive 2003/87/EC.
 - The list of GHGs in that Annex to the ETS Directive is both incomplete and unclear with respect to fluorinated GHGs covered under the EU NDC: NF₃ (nitrogen trifluoride) is missing and the gas groups HFC (hydrofluorocarbons) and PFCs (perfluorocarbons) are not defined.
 - Instead of Annex II of the ETS Directive, the methodology should better refer to Part 2 of Annex V of the Regulation (EU) 2018/1999 (the Governance Regulation) for defining GHGs (see also our <u>cross-cutting findings</u>).
- Global warming potential (GWP) values: The draft methodology defines CO₂e with a reference to 'global warming potentials' without further specification in section 1: In section 4, a reference to the GWP100 of 5th IPCC Assessment report is made.
 - The reference to AR5 is ambiguous with respect to methane: in the AR5 two different GWPs for methane are given, with and without climate-carbon feedbacks.
 - In EU law, AR5 based GWP100 values are defined in Annex I of Commission Delegated Regulation (EU) 2020/1044 (in that Delegated Regulation under the EU Governance Regulation targeted for the use in the GHG inventory & projection reporting context). For methane, the GWP without climate-carbon feedback was chosen.
 - For future NDCs, the EU may possibly move to AR6 and in that event Annex I of Commission Delegated Regulation (EU) 2020/1044 would be changed.
 - Instead of the general and vague reference to the AR5, the CRCF methodology could
 - either reference to Annex I of Commission Delegated Regulation (EU) 2020/1044;
 - or copy the values given in the present AR5-based version of that Annex (for future NDCs, the EU may possibly move to AR6 and in that event Commission Delegated Regulation (EU) 2020/1044 would be updated).
 - Both approaches have precedents under EU law, both under the EU-ETS:
 - The definition of GWPs applied for ETS emissions in maritime transport activities is managed in in Regulation (EU) 2015/757 via a link to of Commission Delegated Regulation (EU) 2020/1044.



- The definition of GWPs applied for ETS emissions in stationary installations (certain activities in chemical industry and metal production) is managed in Commission Implementing Regulation (EU) 2018/2066 by means of copying the relevant GWP values into Annex VI section 3 Table 6 of that Implementing Regulation (and the values in that Table were updated from an AR4 basis into an AR5 basis by means of an amendment of that implementing Regulation in 2020, coming into effect 1 January 2021 (see also our crosscutting findings).
- A definition of the word 'industrial' is missing. The term is used in the title of the methodology ('industrial capture and permanent storage') and in the first sentence of the scope definition in section 2.

Section 2: Scope

- Further specification of the scope of eligible activities: The methodology should further specify to which type of DACCS/BioCCS activities it may be applied. This should include whether the methodology may only be applied to new plants or also to the retrofit of existing plants. Furthermore, it should be specified which (if any) parts of the plants may be pre-existing. For example, it should be clarified whether the methodology can be used to install a CCS component at an existing biomass combustion source or whether only the construction of new biomass combustion plants in combination with CCS is eligible.
- Only new mitigation activities should be eligible: The methodology does not include any provisions that prevent rewarding past climate action. The methodology should include provisions to ensure that mitigation activities are only eligible if they are newly implemented and if they have considered the incentives from CRCF units when deciding to proceed with the implementation of the mitigation activities (see our textual proposal in our cross-cutting findings).

Section 3: Activity period, monitoring period and certification period

• The provisions regarding the transfer of CO₂ from the capture facility to the storage facility are unclear. We propose that crediting be based on the amount of CO₂ that is permanently stored (i.e. enters the geological reservoir). Any CO₂ captured but not yet permanently stored should not be credited. It is not appropriate to implicitly credit CO₂ that is still in the process chain.

Section 4: Requirements for quantification

Introduction

Editorial: the second sentence seems incomplete.



Cross-cutting issues:

- Consideration of uncertainty and conservativeness. The methodology introduces a 'conservatism factor' Fc to account for uncertainties (Formula 1 and subsection 7.4). This factor could, in principle, address the requirement for conservative quantification as referred to in Recital 10a, Articles 4(4) and 4(8) and in Annex I of the CRCF provisional agreement. However, the consideration of uncertainty is limited to measurement uncertainty. This is inconsistent with, and sets a lower standard than, the requirements under the Clean Development Mechanism (CDM), the Article 6.4 mechanism and the Integrity Council for the Voluntary Carbon Market (ICVCM). The ICVCM requires that, in estimating overall uncertainty, "all causes of uncertainty shall be considered, including assumptions (e.g., baseline scenario), estimation equations or models, parameters (e.g., representativeness of default values); and measurements (e.g., the accuracy of measurement methods). The overall uncertainty shall be assessed as the combined uncertainty from individual causes" (ICVCM 2023). Similar rules apply under the CDM and the Article 6.4 mechanism. To follow best scientific practice, the consideration of uncertainty should include all relevant causes of uncertainty.
- Lack of provisions on a full mass balance: The methodology is proposed to be applicable to activities that use common infrastructure. This may include the capture of CO₂ from different sources, different segments of transportation of CO₂, and the injection in geological reservoirs at different points. While the methodology has generally appropriate provisions to identify segments of the infrastructure and refers to an allocation of emissions, it does not explicitly require establishing a full mass balance that includes all components of the system that belong to the infrastructure used by the credited activity. The methodology should require a full mass balance, including all (non-credited) components of the system used by the certified activity, and elaborate provisions on
 - how a mass balance of the CO₂ flows should be established;
 - how emissions associated with common infrastructure are allocated to different (credited and non-credited) activities; and
 - what type of agreements between the users of the infrastructure regarding the allocation should be made and presented together with the certification.
- Specification of parameters that are not monitored: The methodology requires
 to include in the monitoring plan only parameters that are "monitored on an annual
 basis throughout the certification period." The methodology does not specify
 where and how the choice of other non-monitored parameters is documented and
 justified. We recommend that these parameters be provided with the initial certification.
- Equations 11, 20 and 37 and the text above the equations are not clear. Mathematically, it does not work to set emissions at 1% of CR_{total} in order to determine CR_{total}. In addition, the text refers to 1% whereas the formula refers to 2%.
- Emission factors for inputs should refer to the process chain emissions, rather than the "lifecycle emissions", as the inputs are being used under the activity.



• It is not clear why the re-certification audit refers to the "preceding" certification period and not the monitoring period being audited.

Sub-section 1 – Quantification of permanent net carbon removal benefit

• Use of storage, rather than capture, as the basis for quantifying removals: The methodology determines the amount of CO₂ permanently stored indirectly, by quantifying CO₂ capture and subtracting estimated CO₂ losses from storage and transport (equation 2). As CO₂ losses from transportation and storage are associated with significant uncertainties, it would be more accurate to derive the amount of CO₂ permanently stored based on the amount of CO₂ injected at the relevant injection point(s) and, where common infrastructure is used, allocation of that amount to the different capture facilities. Under the current equations, the total credited amount could exceed the total amount injected and actually permanently stored (if CO₂ losses from storage and transport are underestimated).

Sub-section 1.1 - Carbon removal sinks and emission sources:

- No consistent treatment of emissions from electricity and heat: The list of emission sources and sinks provided in Table 1 is relatively comprehensive, but consumption of electricity and heat is not addressed consistently. While electricity consumption is accounted for in the context of transportation of CO₂ and injection in the storage site, it is not accounted for in the context of CO₂ capture. Similarly, heat consumption (e.g. from plants at the same site) is only addressed for CO₂ injection but not for CO₂ transportation of CO₂ capture. The table should be amended to systematically capture fuel consumption, electricity consumption and heat consumption for all three steps of the process (capture, transportation and injection).
- The proposed materiality threshold is inconsistent with the principle of conservative quantification. The methodology should be revised to include all emission sources or sinks, except where the exclusion is conservative (see our cross-cutting findings for more details). Note also that the materiality threshold of 2% refers to 'gross carbon removals' without defining what 'gross carbon removals' are, which presumably refers to CR_{total}.

Sub-section 2 - Baseline:

- No consideration of public funding: While DACCS or BioCCS are clearly not financially viable, they may be subsidised through other public support schemes. If mitigation activities receive both public subsidies and CRCF units, this could artificially lower CRCF unit prices and implicitly subsidise continued fossil fuel use by the buyers of the units. The methodology should either exclude mitigation activities that receive public funding or proportionally attribute the removals or emission reductions to the financial support provided (see our cross-cutting findings).
- Lack of clarity on baseline scenario and consideration of relevant biomass emission sources: As the methodology lacks clarity with regard to its scope, it is also not clear what the assumed baseline scenario is, in particular whether the biogenic sources would be combusted regardless of the possibility to capture and permanently store CO₂ or whether that possibility enables the construction of new



combustion process based on biogenic sources. In the latter case, emissions associated with biomass generation, processing and transportation would need to be included. These are currently excluded.

Similarly, the amount of biogenic resources used in existing plants could be expanded as a result of the certification. The methodology allows for an expansion of up to [25%] without accounting for the associated emissions impact. Consistent with the practice in many carbon crediting methodologies such as under the CDM, we suggest that for any increase in biomass use beyond the average of the last three years prior to the implementation of mitigation activity the impact of using more biomass would need to be accounted for. Moreover, the methodology should include a procedure to identify the relevant baseline scenario and account for the emissions impact of expanded use of biogenic resources (see our cross-cutting findings on accounting for biomass for more details).

Sub-section 3 – Installations capturing atmospheric CO₂ from ambient air

- The general approach seems appropriate. It covers all relevant emissions sources. However, it should be improved in several areas:
 - Equation 11 and the text above the equation are not clear. Mathematically, it does not work to set emissions at 1% of CR_{total} in order to determine CR_{total}. In addition, the text refers to 1% whereas the formula refers to 2%.
 - More guidance necessary on the term 'CO_{2fossil,stored}': It is not clear how the term CO_{2fossil,stored} should be 'monitored', given that it would need to be determined based on an overall mass balance. Further guidance is necessary on how to determine this term.
 - More guidance necessary on the term 'GHG_{capital}': It is not clear what the term 'GHG_{capital}' exactly entails and how it should be determined. The text refers to "capital emissions from construction and installation of the carbon capture facility". It should be further clarified which emissions sources should be considered. This should include at least:
 - Upstream emissions associated with the production of relevant materials (e.g. steel) required for plant;
 - Energy consumption (fossil fuels, electricity, heat) associated with the construction and installation of the plant (e.g. from transport or on-site construction);
 - (Indirect) emissions from land-use or land-use change for land required by the plant (e.g. indirect land-use emissions associated with the conversion of usable land, such as agricultural land, for use under the project);

It should be further clarified that this may include emissions that have occurred prior to the start of the activity period (e.g. from production of equipment or land-use change occurring prior to the start of the operation of the CO_2 air capture installations).

It seems also unreasonable to assume that operators have the respective data on these emissions, as proposed in Table 2. It should be further



clarified how the respective parameters should be determined, e.g. which data sources may be used, etc.

Sub-section 4 – Installations capturing CO₂ from point sources of biogenic emissions

- Emissions from operation of the biomass source plant not considered: The methodology does not consider emissions "associated with the normal operation of the facility generating the biogenic CO₂ source". This is appropriate in cases where the facility is pre-existing and does not increase the use of the biogenic resource as a result of the CRCF certification. However, it is possible that new facilities start operation, or that the production in existing facilities is expanded as a result of the possibility generate CRCF units. In this case, the associated emissions from the biogenic CO₂ source should be considered. The methodology should be revised respectively.
- Methodology lacks clarity how it should be applied to a facility that generates both biogenic and fossil CO₂: Some facilities, such as power plants, may use both fossil and biogenic fuels. The methodology lacks clarity how the biogenic fraction of any CO₂ captured from these plants should be determined. The methodology should either exclude such plants in the scope section or provide respective procedures quantify the amount of biogenic CO₂ captured.
- Further clarity needed on the term 'Q_{biomass}': The methodology should provide further clarity how this term should be determined. For example, electricity and/or heat could be used from a biomass-fired combined heat and power (CHP) plant. In this case, determining an emission factor for extracting additional heat (at the cost of some electricity generation) is not straightforward.
- Term 'CO_{2fossil,stored}' in equation 16: It is not clear why this term is added in the equation. As this section refers only to capture of CO₂ from biogenic sources, it does not make seem to make sense to add this term.
- Further clarity needed on the term 'Q_{disposal}': The methodology should provide further clarity on how this term should be determined. For example, it is not clear how any anaerobic methane emissions from disposal or storage of biomass should be quantified.

Sub-section 5 - Transport of CO₂

• No determination of GHG_{capital} for transport of CO₂: The methodology considers upstream emissions associated with construction and implementation of facilities for CO₂ capture and CO₂ storage but not for the transport of CO₂. It is unclear why these emissions are not considered given that they could be more material than emissions associated with capture or injection. We note that in the beginning of sub-section 5 it is stated that "transport infrastructure is defined in Article 3(29) of Regulation (EU) 2024/1735) which may be part of one or more transport networks (as defined in Article 3(22) of Directive 2009/31/EC)." Article 3(22) of Directive 2009/31/EC) states the 'transport network' means the network of pipelines, including associated booster stations, for the transport of CO₂ to the storage site." The methodology should be revised to also include GHG_{capital} for transport of CO₂.



- The methodology should provide clear rules for the allocation of shared transportation infrastructure (see comment above on cross-cutting matters).
- The example on page 23 is a helpful explanation. However, in the fourth point it is very unlikely that, with shared infrastructure, the injection at any point would exactly equal to the contribution of a specific capture facility. We therefore recommend changing the example.
- The text below equation 21 does not define F_S.
- The determination of the term 'CO_{2vented}' seems to be based only on "planned" or "expected" venting. The methodology should monitor the actual venting occurring, rather than only estimating this parameter ex-ante.

Sub-section 6 – Storage of CO₂

- No monitoring and accounting for CO₂ leakage after the end of the activity period: The methodology does not address that monitoring of CO₂ leakage from the geological reservoir should continue after the end of the activity period, until the end of the monitoring period, as defined in section 2. Any CO₂ leakage from the reservoir should be monitored and reported during this period.
- It is not clear what is meant with the term "relevant" storage site in Table 5. It would be useful to better clarify that the boundary should include all storage sites that the share infrastructure with the certified capture activity.

Subsection 7 – Common principles for quantification

- Clearer guidance on choice of parameters: The methodology does not sufficiently specify how measurements should be undertaken, what data sources may be used (e.g. lifecycle assessment tools), what monitoring frequency is appropriate, how conservativeness in the choice of the data will be ensured (e.g. where different data sources indicate a plausible range of values) and how the selection of parameters should be verified. Generally, more information on monitored and non-monitored parameters is required.
- Electricity emission factors: The methodology states that operators "may" always report emissions based on a "grid average emission factor for a country in which the activity is located" (page 38). This creates unclarity which other approaches (not average) or geographical boundaries (EU rather than the country) may be used. Such adverse selection has been widely observed in the carbon crediting market (see, for example, Haya et al. 2023). Therefore it is good scientific practice to either require the use of default values or offer default values that are very conservative (and thus overestimate transport emissions) while allowing operators to also use different values. The methodology should be revised respectively.
- Deviation from default transport emission and conversion factors: The methodology provides default values for emissions from fossil transportation. The methodology also allows operators to "adopt different emission and conversion factors" if a parameter is "not suitable for their activity". This flexibility could lead to adverse selection of emission factors, depending on which value is more favourable in the context of the certified activity. Such adverse selection has been



widely observed in the carbon crediting market (see, for example, Haya et al. 2023). Therefore it is good scientific practice to either require the use of default values or offer default values that are very conservative (and thus overestimate transport emissions) while allowing operators to also use different values. The methodology should be revised respectively.

- Clarification that capital emissions may include emissions that have occurred prior to the activity period: The methodology should clarify that capital emissions (e.g. from the construction of equipment) may have occurred prior to the start of the activity period but should nevertheless be accounted for.
- Unclear materiality assessment: The materiality assessment referred to in section 7.3 c) is unclear. As stated above, the omission of emission sources that lead to overestimation of removals is not good practice in carbon crediting. We recommend dropping element c).
- Exclusion of capital emissions associated with non-biomass renewable energy: It is unclear why these emissions are excluded in section 7.3 d), while similar emissions from other equipment is included. It seems arbitrary to exclude this emission source. This may also lead to overestimation of total removals. We recommend dropping element d).

Section 5: Storage monitoring and liability

- No accounting and compensation of reversals from CO₂ leakage after the end of the activity period: The methodology does not include any provisions to compensate for CO₂ leakage that is observed in the monitoring period, after the activity period has ended. The storage should only be considered to be permanent once the monitoring period has ended. The monitoring period should extend from storage site closure until handover of the responsibility for the storage site to a competent governmental authority and beyond.
- Further clarity needed as section 5 only considers Directive 2009/31/EC and Directive 2003/87/EC: Directive 2009/31/EC refers directly to Directive 2004/35/EC, "in particular concerning the injection phase, the closure of the storage site and the period after transfer of legal obligations to the competent authority, should be dealt with at national level." For clarification, the methodology should also include Directive 2004/35/EC to be complaint with.
- Clearer provisions needed with regard to granted storing permits: Directive 2009/31/EC states that "a storage permit is given for a specific storage site" where the operator is authorised to carry out storage activities. It is not clear yet how potential changes in spatial extent a storage site over time will affect the effectiveness of storage permits (and thus the accounting of carbon removals). For example, an operator (Equinor) has obtained an operation license for the Northern Lights project to carry out storage activities in the Aurora storage complex. It is expected that after a few decades after storage activity has ceased, the CO₂ will migrate, eventually exceeding the limits of the current storage permit. Imminently, the storage site, and thus the storage complex, must be expanded affecting directly monitoring activities. This may have impact on the quantification and certification of carbon removals. The methodology should include clearer provisions



for the entire process chain of the storage activity, including long-term monitoring activities, affecting carbon removal certification. Methodologies should demand a clear plan required to grant storage permits considering how a storage site, and therefore a storage complex (and thus a monitoring plan depending on it) will be extended long after operation ceased.

• The methodology lacks clarity concerning Article 18, 1 (b) of Directive 2009/31/EC: ...a "minimum period" for handover of responsibility to a governmental authority of a Member State shall not be shorter than 20 years after site closure. The methodology should address whether a minimum period of 20 years is enough to properly quantify and certify carbon removals with permanent storage. Neither the Directive 2009/31/EC nor its the guidance documents provide scientific background justifying 20 years as minimum period.

Section 6: Sustainability requirements

- Further clarity needed on item (i): In point (i), the methodology requires the
 activity to be compliant with the criteria set out in Appendix A to Annex 1 to Commission Delegated Regulation (EU) 2021/2139. However, this provision is not
 clear:
 - Commission Delegated Regulation (EU) 2021/2139 functions under the Taxonomy Regulation (EU) 2020/852
 - Commission Delegated Regulation (EU) 2021/2139 of 4 June 2021 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to climate change mitigation or climate change adaptation and for determining whether that economic activity causes no significant harm to any of the other environmental objectives.
 - Appendix A to Annex 1 does not list any criteria but rather lists a classification of climate-related hazards, relevant for adaptation-related DNSH (do no significant harm) criteria under the Taxonomy. We wonder whether the reference in the methodology was a drafting error and which reference was intended to be included.
- Further clarity needed on item (vi): Reference to Art. 29 of RED needs to be improved:
 - In point (vi), the methodology requires that all biomass used for eligible BECCS activities shall comply with the sustainability requirements detailed in Article 29. It further implies
 - that therefore (quote: "i.e.") 'all biomass utilised as feedstock must meet the requirements to be eligible to receive Member State financial support if utilised in energy applications'
 - and that this 'excludes the use as feedstock of saw logs, veneer logs, industrial grade roundwood, stumps and roots'.



- In our interpretation of the RED, Art 29 sustainability requirements (as laid out in paras (2) (7) of Art 29) do apply as minimum requirement for biomass eligible for financial support (see RED Art 29 (1) point c). However, it's not the Art 29 sustainability criteria that exclude saw logs, veneer logs, industrial grade roundwood, stumps and roots from financial support. This exclusion is provided for under Art 3(3c) of RED III.
- o In order to safeguard the exclusion of those biomass feedstock types, the feedstock limitation in section 6 of the CRCF methodology should better refer to both, eligibility under RED Art 3 (3c) and compliance with sustainability criteria of RED Art 29 (2)-(7). A simple reference to Art 29 of the RED would be unclear and misleading.
- The authors of this note cannot yet judge whether it would make sense to link biomass sustainability criteria in the DACCS/BECCS methodology also to compliance with GHG emissions savings criteria of RED Art 29 (10). Such a judgement would require an in-depth analysis of energy savings calculations defined in subordinate legislation under the RED.

Section 7: Information to be included in the certificate of compliance

Information to be made available on CRCF units: The information to be included in certificates and publicly available background information should be amended (see the specific proposals in our <u>cross-cutting findings</u>).

References

Haya, Barbara K.; Alford-Jones, Kelsey; Anderegg, William R. L.; Beymer-Farris, Betsy; Blanchard, Libby; Bomfim, Barbara et al. (2023): Quality Assessment of REDD+ Carbon Credit Projects. Berkeley Carbon Trading Project. Online verfügbar unter https://gspp.berkeley.edu/research-and-impact/centers/cepp/projects/berkeley-carbon-trading-project/REDD+, zuletzt geprüft am 18.03.2024.

ICVCM (2023): Core Carbon Principles, Assessment Framework and Assessment Procedure. Online verfügbar unter https://icvcm.org/.

Öko-Institut e.V | Freiburg | Darmstadt | Berlin

The Oeko-Institut is one of Europe's leading independent research and consultancy organisations working for a sustainable future. Since its establishment in 1977, it has been laying the groundwork and devising strategies to realise the vision of sustainable development at global, national and local level. The Oeko-Institut has offices in Freiburg, Darmstadt and Berlin.

www.oeko.de | info@oeko.de

Contact

Lambert Schneider | <u>l.schneider@oeko.de</u>

This assessment was commissioned by Carbon Market Watch. It represents the views of the authors only and not necessarily the views of Carbon Market Watch.