



EUROPEAN COMMISSION
DIRECTORATE-GENERAL
CLIMATE ACTION
Directorate B – Carbon Markets & Clean Mobility
Unit B.2 – ETS (II): Implementation, Policy Support & ETS Registry

TRAINING MATERIAL

*Training Events on
Biomass in the EU ETS
20 and 27 October 2022
Updated version of May 2023*

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1 INTRODUCTION

In 2018, the Renewable Energy Directive was recast as “RED II”¹. In the same year, updated versions of the Monitoring and Reporting Regulation (MRR²) and the Accreditation and Verification Regulation (AVR³) were published for the fourth phase of the EU ETS. According to these, from 2023 onwards,⁴ operators of EU ETS installations and aircraft operators in the EU ETS may assign an emission factor of zero only to biofuels, bioliquids or biomass fuels if the relevant sustainability and greenhouse gas savings criteria for these fuels are satisfied.

In order to make the requirements of the RED II in the context of the EU ETS better accessible, the Commission published an updated version of Guidance Document No. 3 (“GD3”) on “Biomass issues in the EU ETS”. It can be downloaded from:

https://climate.ec.europa.eu/system/files/2022-10/gd3_biomass_issues_en.pdf

Publication of that guidance was followed by two training events for competent authorities and EU ETS verifiers on 20 and 27 October 2022. The first day focussed on general topics of biomass in the EU ETS: which sustainability and greenhouse gas (GHG) savings criteria apply in which cases, how compliance with these “RED II criteria” can be proven, and how national or voluntary certification schemes function, in particular if recognised by the European Commission. The second day covered more specialised topics, such as the treatment of biogas if fed into natural gas grids, biofuels in aviation, and topics related to the verification and accreditation of verifiers. The full agendas are given in section 2.

This document supplements the presentations given (see Annex to this document) with answers to questions asked during the events, provided they are of general interest (section 3).

¹ Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (recast). Download under: <https://eur-lex.europa.eu/eli/dir/2018/2001/oj>

² Commission Implementing Regulation 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No. 601/2012. Download the consolidated version under https://eur-lex.europa.eu/eli/reg_impl/2018/2066

³ Commission Implementing Regulation (EU) 2018/2067 of 19 December 2018 on the verification of data and the accreditation of verifiers pursuant to Directive 2003/87/EC of the European Parliament and of the Council. Download of consolidated version: https://eur-lex.europa.eu/eli/reg_impl/2018/2067/2021-01-01

⁴ A derogation applies for the year 2022, where Member States, or competent authorities as appropriate, may consider as fulfilled the sustainability and greenhouse gas emissions saving for biofuels, bioliquids and biomass fuels used for combustion from 1 January 2022 to 31 December 2022.

2 AGENDAS OF THE TRAINING EVENTS

EU ETS Compliance Forum
Training Event on Biomass No. 1
Thursday 20 October 2022

Location: ONLINE

Draft Agenda

10:00 - 10:15	Opening, welcome and introduction	DG CLIMA
10:15 - 10:45	Overview of MRR requirements for biomass (RED II criteria)	Umweltbundesamt
10:45 - 11:15	Q & A and Discussion	
11:15 - 11:30	Coffee break	
11:30 - 12:00	RED II – Certification systems: Requirements, recognition of national and voluntary schemes	DG ENER
12:00 - 12:15	Q & A	
12:15 - 13:30	Lunch break	
13:30 - 14:30	MS case studies - Checking process and procedures - Common challenges - Best practices	MS experts (CZ, FR, NL, DK, BE)
14:30 - 14:40	Coffee break	
14:40 - 15:25	Certification systems in practice - From viewpoint of certification system - From auditor point of view	ISCC ⁵ ; Verico
15:25 - 15:40	Q&A	
15.40 - 16:00	Wrap up and close of meeting	DG CLIMA

⁵ International Sustainability & Carbon Certification

EU ETS Compliance Forum
Training Event on Biomass No. 2
Thursday 27 October 2022

Location: ONLINE

Draft Agenda

10:00 - 10:15	Opening, welcome and introduction	DG CLIMA
10:15 - 10:30	Biogas in grids - Requirements	Umweltbundesamt
10:30 - 11:00	Example of a biogas registry and ERGaR	AGCS ⁶
11:00 - 11:15	Q&A	
11:15 - 11:25	Coffee break	
11:25 - 11:40	Other Biomass issues: Determining the biomass fraction, CEMS, etc.	Umweltbundesamt
11:40 - 11:50	Q&A	
11:50 - 12:15	Biofuels for Aviation: Requirements	Umweltbundesamt
12:15 - 12:30	Q&A	
12:30 - 14:00	Lunch break	
14:00 - 14:25	The role of the verifier in assessing biomass requirements - main requirements	SQ Consult
14:25 - 14:40	Q&A	
14:40 - 15:00	Verifier's checks on compliance with RED II criteria	SQ Consult
15:00 - 15:15	Q&A	
15:15 - 15:25	Coffee break	
15:25 - 15:40	Verifier's checks on compliance with RED II criteria	SQ Consult
15:40 - 15:50	Q&A	
15:50 - 16:00	Wrap up and close of meeting	DG CLIMA

⁶ Austrian Gas Clearing and Settlement

3 QUESTIONS AND ANSWERS

3.1 Day 1

Questions on the applicability of RED II criteria

1. An installation using solid biomass for heat production has started operations before 2019. After 2021 a new combined heat-and-power (CHP) boiler is installed. Should GHG saving criteria apply to biomass fuels used by this new CHP unit or does compliance with GHG savings criteria only have to be demonstrated if the whole installation has started operations after 1 January 2021?

Article 38(5) of the MRR clarifies that Article 29(10) of the RED II (i.e. the GHG savings criteria) shall apply to an installation as defined in Article 3(e) of the EU ETS Directive, i.e. not to individual parts of that installation. Therefore, in this case, compliance with GHG savings criteria does not have to be demonstrated because the “start of operation” (i.e. the physical production of heating, cooling and electricity from biomass) started before 1 January 2021. The GHG savings criteria are therefore not applicable to the solid biomass used in the CHP unit. For more information, please see sections 3.4.2 and 3.4.6.2 of GD3.

2. What would happen if a boiler installed by 2019 would be replaced by a boiler with better efficiency but using the same biomass as before. In that case everything in the installation would change, only the building is left standing. Would GHG savings criteria in that case be applicable to the biomass fuel used in the newly adapted installation? And what would apply if, for example, a new flue gas treatment system was installed after 2026? Would it be considered a new installation? What documents would be required to prove this issue (subject of verification)? Would this be the permit?

As explained under the previous question, it is the whole installation which has to “start operations” after 1 January 2021 in order for GHG savings criteria to be applicable to the biomass fuel used by the installation. An installation is considered to be in operation before 1 January 2021 if the physical production of biofuels, biogas consumed in the transport sector and bioliquids, and the physical production of heating and cooling and electricity from biomass fuels has started before that date (Article 29(10) of RED II). GD3 explains that the first use of any biomass for regular use (i.e. excluding tests with a specific fuel) is relevant for this start of operation. For more information, please see sections 3.4.2 and 3.4.6.2 of GD3.

3. Would an operator using a rendering animal fat need to comply with GHG savings criteria? The (liquid) fat is a result of the installation's own activity and its production is not the main purpose of the installation. Is the fat a residue within the RED II's definition? The fat may be sold for further use, but the fat is combusted instead directly in the installation.

Animal fat is a by-product if it can be separately sold. No sustainability criteria apply because the animal fat is not a land-based material and does not fall under Article 29 (2) to (7) of the RED II. However, Article 29(10) (GHG savings criteria) applies, as the fat is reported to be a bioliquid. The GHG savings criteria depend on the starting date of operation of the installation that produces the bioliquid.

4. Which RED II criteria apply to the agroindustry using animal residue to produce biofuel? Should this be considered as waste or biomass? When will these criteria apply and how should compliance with RED II criteria be demonstrated?

As in the previous question, animal residues do not need to comply with land-related sustainability criteria. If, however, (liquid) biofuels, bioliquids or biogas for transport purposes are produced from these materials, GHG savings criteria apply depending on the starting date of operation of the installation that produces these materials.

Compliance with RED II criteria

1. When the EU ETS installation (as biomass consumer) needs to fulfil only sustainability criteria (without GHG savings criteria), could the operator of the EU ETS installation demonstrate compliance with RED II criteria based only on the certified supply chain without obtaining its own certification under a voluntary scheme certification?

The operator of the EU ETS installation has to demonstrate compliance with RED II criteria through the approaches that are allowed in a Member State: voluntary schemes, national schemes or own evidence provided by the operator. The EU ETS operator does not necessarily have to become an economic operator under the RED II, i.e. to get a RED II certification of its own. Indeed, proof of sustainability can come from another economic operator, e.g. the biomass supplier. For further information please see section 3.4.5 of GD3. Note that the proof of sustainability through a supply chain implicitly requires keeping a mass balance within the meaning of the RED II.

2. Installations exclusively using biomass are not included in the EU ETS. Does it mean that they do not need evidence that their biomass is sustainable?

Annex I of the EU ETS Directive does not refer to the RED II. I.e. "biomass" in this context is understood as "without application of the RED II criteria".⁷

Accreditation and Verification

1. If biodiversity criteria are different in a third country, how are RED II auditors and EU ETS verifiers able to verify the whole production chain and the biomass sustainability criteria from a third country?

The RED II criteria, including biodiversity-related ones, apply independent of the geographical origin of the biomass (Article 29(1) RED II and Article 38(5) MRR).

2. Should the RED II auditor be accredited by an (European) accreditation body?

In accordance with Commission Implementing Regulation (EU) 2022/996⁸, the certification body performing a RED II audit shall be accredited according to ISO 17065, and according to ISO 14065 where it performs audits on actual GHG values. The accreditation is carried out by a national accreditation body of an EU Member State, as it needs to apply Regulation (EC) No 765/2008. As an alternative to

⁷ Under the revised ETS Directive, this provision changes from 1 January 2026 onwards.

⁸ Commission Implementing Regulation (EU) 2022/996 of 14 June 2022 on rules to verify sustainability and greenhouse gas emissions saving criteria and low indirect land use change-risk criteria

accreditation, certification under that Regulation are also possible, but this must not be confused with certification under the RED II.

3. Accreditation according to ISO 14065 is required when auditing GHG values. Would accreditation under this scope be covered by the Accreditation and Verification Regulation (EU) 2018/2067 (AVR) or would this be a separate new scope?

Certification activities under the RED II do not fall under the scope of the AVR. The relevant accreditation scope follows from the RED II and Implementing Regulation 2022/996. If an EU ETS verifier would like to carry out RED II audits, they need to obtain accreditation according to ISO 17065. For auditing the GHG values in a RED II audit, they could operate under their ISO 14065 accreditation which they already have for the EU ETS, but they would have to demonstrate that they meet the RED II competence requirements applicable to auditing GHG values. The NAB (National Accreditation Body) would have to assess the verifier's competence according to the applicable requirements.

4. What would happen if no accreditation programme is available in the range of services provided by a national accreditation body? Is there already at least one NAB with a RED II accreditation programme implemented?

In some cases, recourse can be sought in another MS according to Accreditation Regulation 765/2008, i.e. a certification body can obtain accreditation from a national accreditation body of another MS. For the purpose of certification of an economic operator, the certification body (i.e. the RED II auditor) accredited in another MS can be used.

5. In the RED II context, does ISO 14065 refer to ISO 14065:2020 which includes references to ISO 17029?

Yes, Implementing Regulation (EU) 2022/996 refers to ISO 14065:2020.

6. To which version of ISO 17065 do RED II auditors/certification bodies have to be accredited according to RED II and Implementing Regulation 2022/996?

RED II auditors/certification bodies have to be accredited according to EN ISO/IEC 17065:2012: Accreditation standard for product certification bodies.

Questions on RED II certification schemes

1. Can a Member State choose to get its national scheme recognized by the Commission?

A Member State can request the Commission to recognize its voluntary national scheme. If the national scheme is recognized by the Commission, certifications from certification bodies and proofs of sustainability from economic operators under that scheme have to be accepted in all Member States, and by all RED II certification schemes recognised by the Commission.

2. When a new biomass source stream is used in an installation that is already certified as an economic operator, is an additional certification process required?

This depends on whether the certification system covers the type of new biomass used in the installation. If this is the case, the proofs of sustainability issued under that same valid certification system are acceptable and no additional certification has to be arranged for. However, if the type of biomass is not or not completely covered by the first certification, additional evidence is needed, i.e. either the scope of the certification is to be extended, or even certification under another certification scheme has to be sought, if the certification scheme's scope is exceeded by the new biomass.

3. Is the Union database going to be used by all certified economic operators (covering raw materials, intermediates), or only by final biofuel producers and traders after the last processing step?

The Union database will be used by all economic operators, although it may be sufficient if entries are made by the last economic operator placing the biofuel to the market.

4. If a default value for GHG savings is provided by the RED II, does this mean that the efficiency of the installation does not have to be taken into account?

Please follow the calculation methodology given in Annexes IV and V of the RED II, as applicable, for each biomass type.

5. Does the Certification Body approve the GHG values for every batch? Or do they approve the mechanism for calculating those values?

The certification body (i.e. the RED II auditor) assesses the mechanism for calculating GHG values and if the economic operator is competent to perform the calculation. They do not approve or confirm the GHG values for every batch, but may perform spot checks, for example as part of audits.

6. How is efficiency (to produce electricity or heat) taken into account in a proof of sustainability?

Please follow the calculation methodology given in Annexes IV and V of the RED II, as applicable, or consult section 3.4.6.2 of GD3.

7. Can Competent Authorities accept a certification issued by non-EU certification bodies accredited by a national accreditation body in the IAF⁹ framework?

Article 2(14) of Implementing Regulation 2022/996 defines a certification body as 'an independent accredited or recognised conformity assessment body that concludes an agreement with a voluntary scheme to provide certification services for raw materials or fuels by carrying out audits of economic operators and issuing certificates on behalf of the voluntary schemes using the voluntary scheme's certification system'. Neither the RED II nor the Implementing Regulation impose restrictions on the location of the certification body. However, accreditation must be obtained from an EU accreditation body. If a Member State has reasonable doubts about the ability of a specific certification body located in a third country, it shall share this information with other MS, the Commission and the voluntary scheme under which the certification body operates (see Article 17(6) of Implementing Regulation (EU) 2022/996).

⁹ International Accreditation Forum

8. Can a RED II auditor from one EU country perform RED II audits in other EU countries?

Yes.

9. Does the biomethane user need to be certified under the rules of a RED II certification scheme?

The EU ETS biomethane user does not have to obtain a certification (i.e. to become an economic operator under RED II) under a voluntary scheme in order to zero rate biomass. They can also get the necessary evidence (certificate and proof of sustainability) from the biogas supplier. Alternatively, the EU ETS operator can obtain a certification in order to issue proofs of sustainability themselves and manage their own mass balance system. This would for example be useful if the EU ETS operator produces the biomethane itself. For more information please see section 3.4.6 of GD3.

10. How can the EU ETS verifier check that all the steps from the cultivation to the consumption of the biomass are covered by the certification? This information does not seem to be included in the proof of sustainability issued by economic operators. Where can this information be found?

The traceability is done step-by-step in a mass balance system. Sustainable biomass can only be sold as sustainable biomass if the exact quantity comes from a certified supplier in the mass balance system. This is verified in the respective RED II audit of each element in the supply chain. Information is included in the proof of sustainability implicitly, because it can only be issued if the mass balance system shows that already the previous step received a PoS. The EU ETS operator has to provide the relevant information to the verifier. This requirement is applicable to all voluntary schemes recognised by the Commission.

11. Has it been considered to require EU ETS verifiers to meet the competence requirements for certification bodies so that EU ETS verifiers can evaluate compliance with the RED II criteria?

EU ETS verification is a separate and different task compared to RED II audits. The competence requirements, the accreditation standards¹⁰, the objectives of the verification¹¹ as well as the activities carried out during the verification are different. More information on the differences between the two types of audits can be found in Annex I of KGN II.3 on process analysis. During the EU ETS verification, the EU ETS verifier will perform checks on the RED II certificates and proofs of sustainability that are relevant for the batches of biomass used by the EU ETS installation. For those purposes EU ETS verifiers need to have knowledge of the relevant articles in the MRR, RED II, and Implementing Regulation (EU) 2022/996. GD3 and KGN II.3 can be used for further guidance. RED II certification/audits by certification bodies are regulated by RED II and Implementing Regulation (EU) 2022/996, and their accreditation scope is governed by a different EU regulation with separate rules. Therefore, if the EU ETS verifier wants to carry out RED II audits/certification, they have to have the appropriate accreditation, meet the RED II competence criteria and there should be no conflict of interest. More information can be found in section 3.4.6 of KGN II.3.

¹⁰ RED II auditors/certification bodies have to be accredited against ISO 17065

¹¹ A RED II audit/certification is an ex-ante verification whereas the EU ETS verification is an ex-post verification.

Implementation in Member States

1. Do the new MRR requirements on biomass lead to changes to the Monitoring Plan (MP)? If yes, when?

Annex I MRR requires operators to include in the MP a description of the written procedures for demonstrating compliance with RED II criteria. Before the end of 2022, operators should check if they use biomass for which RED II criteria apply and submit amendments to the MP to their competent authority for approval, if applicable. The procedure itself does not have to be included in the MP and can be updated internally by the operator. The procedure must be made available to the verifier to check compliance with RED II criteria.

2. Must installations excluded from the EU ETS under Article 27 or 27a of the EU ETS Directive (“opt-out”) demonstrate compliance with the RED II criteria when calculating their annual emissions?

The response to this question depends on MS legislation: which type of monitoring and reporting requirements apply to opt-out installations.

3. For the 15 voluntary schemes already recognised by the Commission, some requirements under the implementing act pursuant to Article 30(8) are not yet met, and a new recognition by the Commission is required. The result of this process is expected for January/February 2023. Does this mean that operators have to wait until that moment before they can find a relevant scheme for their biomass or can they already find this information from now on? What is the risk? How should this be handled by the CA (Competent Authority)?

Competent authorities should decide on a case-by-case basis, in a pragmatic manner. It is expected that the recognised schemes will meet the additional requirements within reasonable time. However, it is important for operators to describe the situation when submitting the updated monitoring plan.

4. In the case of a delay in the certification (for example April 2023 rather than 1 January 2023), can the biomass be zero-rated if it is consumed in the period where there was no certification, and no proof of sustainability could be provided?

An operator cannot zero-rate biomass if the proof of sustainability for that particular batch of biomass has not been issued based on a valid certification at the time when the biomass is consumed in the EU ETS installation. In those cases, the emissions from that biomass are regarded as fossil emissions and no biomass fraction is applied to the quantity of biomass. However, if the certification is obtained at a later moment and it can be demonstrated to the satisfaction of the competent authority that the type and origin of the biomass have not changed, proofs of sustainability can be retroactively issued (subject to the rules of the certification system).

3.2 Day 2

Biogas

1. Is it possible to use Proof of Sustainability (PoS) and Guarantees of Origin (GoO) at the same time and, if yes, under what conditions?

Please see GD3 section 3.4.6.6. For demonstrating compliance with sustainability and GHG savings criteria, GoO are not sufficient. They do not include the full information on sustainability, and they can be traded independently of physical biogas quantities documented in a mass balance system such as a biogas registry. Therefore, they do not ensure that double counting is excluded.

On the other hand, the proof of sustainability does not include trade information on the actual quantities of biogas and whether the mass balance was covered correctly. For that reason, the purchase contract or the certificate from a biogas registry is required, which ensures that the requirements are fulfilled.

2. Does an operator that produces biogas by anaerobic digestion for the purposes of self-consumption need to comply with the GHG saving criteria?

More information is needed to answer the question. It depends on the source of the digested biomass to decide if land-based criteria are applicable. If these criteria are applicable, compliance with these criteria can be demonstrated through a voluntary scheme recognised by the Commission, a national scheme or the operator's own evidence. It depends on MS rules on what approach is allowed in a MS. Meeting GHG savings criteria is probably relatively simple in this case because – assuming this is about waste/residues generated in the installation – life cycle emissions would only start at the digestion process.

3. If a biogas register is not available, can evidence of compliance with RED II criteria and the absence of double counting be demonstrated by using purchase records that clearly mention the purchased quantity of biogas, the cancelled guarantee of origin and the necessary proof of sustainability?

If a biogas register is not available, the operator of an EU ETS installation has to use a supply contract to provide evidence of the quantity of purchased biogas. Invoices will have to be demonstrated to the verifier and if requested to the CA. The operator will also have to demonstrate compliance with RED II criteria through the regular approaches: a voluntary scheme, national scheme or operator's own evidence depending on which approaches are allowed by the MS. The operator should obtain such evidence from the supplier of the biogas, taking into account the full supply of biogas production.

Other Biomass issues:

1. Can installations with low emissions make use of a derogation claiming unreasonable costs to avoid application of the RED II criteria? Or is this derogation never possible for biomass?

The only possible derogation is the use of the conservative assumption that the fuel is of 100% fossil origin. Whether biomass complies with the RED II criteria or not is not a factor within the tier system. Consequently, no simplifications are foreseen.

2. When will the MRR amendments on demonstrating compliance with RED II criteria enter into force. Will this be for the monitoring and reporting of emissions happening in 2023?

For biomass combusted during the year 2022, Member States or competent authorities may allow operators or aircraft operators to deviate from Article 38(5) and zero rate biomass without demonstrating compliance with RED II criteria. Member States can thus choose to delay the application of criteria until 31 December 2022. For biomass combusted from 1 January 2023 onwards, the RED II criteria apply in order to zero rate the emissions. The emission data for 2023 are to be reported in 2024. Not every Member State has used this option. Operators and verifiers need to check with their MS.

Aviation biofuels:

1. If a stationary installation tests aero engines, would the sustainable aviation fuel (SAF) used by the installation for testing be considered an aviation biofuel or bioliquid?

Bioliquid is a liquid fuel used for energy purposes other than for transport. In this case, the fuel is not used for transport purposes and would thus be considered bioliquid according to Article 3 MRR. Note that "sustainable aviation fuels" are not defined in the MRR, and are not necessarily based on biomass. The answer therefore is only correct if the SAF is indeed biomass.

2. Commission Delegated Regulation (EU) 2019/1603 declares that the MRR and AVR shall apply to monitoring, reporting and verification of EU aircraft operators subject to CORSIA. How does this delegated act relate to CORSIA SAFs rules?

MRR and AVR shall apply fully to monitoring, reporting and verification of EU aircraft operators subject to CORSIA including provisions on biofuels.

3. Can aircraft operators claim SAF mandates¹² under EU ETS?

The requirement to deliver a certain amount of biofuel (SAF mandates) will apply to the fuel suppliers, not the aircraft operators once the "ReFuelEU aviation" Regulation (a proposal of the Fit for 55 package) has come into force. As a consequence, the aircraft operators can claim the respective biofuel uplifted. A mandate to deliver SAF does not mean that SAFs can automatically be taken into account in ETS, the aircraft operators must demonstrate the actual use or purchase of the biofuel regardless whether the biofuel has been delivered due to a SAF mandate or not.

Role of verifiers

1. How much time would it take for an EU ETS verifier to obtain accreditation to also act as a RED II auditor?

The ETS verifier would have to obtain an ISO 17065 accreditation which could take a whole year. The length of the procedure depends on how organised the verifier is, what procedures are in place and what scheme-specific requirements apply. For national schemes, other or additional qualifications compared to ISO 17065 may apply.

¹² The requirement to provide or use a certain amount of biofuels.

2. Does the EU ETS verifier need to get accreditation to assess compliance with RED II criteria or can assessment be done under the current accreditation?

An EU ETS verifier does not have to get ISO 17065 accreditation for the EU ETS verification of emission reports. However, they do have to have knowledge of the RED II, its implementing/delegated acts and guidance as part of the regular competence requirements.

A RED II auditor carrying out RED II audits would need accreditation against ISO17065. Auditors that are already accredited to that standard would still need to demonstrate that they comply with additional competence requirements under the RED II and Implementing Regulation 2022/996. The NAB would need to check auditor procedures, impartiality measures, compliance with competence requirements. If a national scheme applies, other or additional requirements may apply.

3. Does the EU ETS verifier have to check the work of the RED II auditor in order to confirm compliance with RED II criteria?

The extent of checks of the EU ETS verifier depends on the approach that was applied to demonstrate compliance with RED II criteria. If a voluntary scheme recognised by the Commission is used, the verifier will perform specific checks on the certificate issued to the economic operator under that voluntary scheme and proof of sustainability issued by the economic operator. When national schemes or operator's evidence are used, the verifier will perform some checks on, for example, the audit scope (e.g. whether it includes a full chain of custody) or whether the auditor is properly qualified. Section 4.3.4 of KGN II.3 on process analysis provides information on what checks should be carried out.

4. Should the EU ETS verifier perform checks on the proof of sustainability provided by the EU ETS operator obtained through a voluntary scheme recognised by the Commission?

The verifier will perform checks on the certificate obtained through the voluntary scheme as well as the proof of sustainability. Section 4.3.4 of KGN II.3 provides information on what checks an EU ETS verifier should carry out.

5. Should a RED II auditor be accredited according to ISO 14065 if the installation uses biomass for which GHG savings criteria do not apply? For example an installation that started operations before 2021 and that burns olive kernels?

A RED II auditor only has to be accredited against ISO 14065 if it has to assess GHG values. So in this case it is not necessary.

6. Which elements of the certificate or proof of sustainability have to be checked in order to assess whether the full biomass chain is covered by the certification?

The certificate issued under the voluntary schemes shows the scope of the certification and will thus show whether the full biomass chain is covered. It is important to note that certificates issued by a recognised voluntary scheme are referring to a specific element/economic operator in the supply chain but do not necessarily cover the entire supply chain. Traceability is taking place step by step between the certified supply chain elements (i.e. economic operators). This means that each supply chain element/economic operator in the biomass chain can only forward the amount of sustainable material that it has received as sustainable material. The amounts and the steps in the process are audited annually by the certification bodies (i.e. RED II auditors).

7. What level of assurance is required in voluntary schemes?

In voluntary national and international schemes, a reasonable level of assurance is applied in the initial audit¹³. If, based on a risk assessment taking into account the results of the initial audit, the economic operator is perceived to be at low risk, a limited level of assurance can be applied for subsequent audits. National schemes established by Member States prescribe the level of assurance in national legislation or let the auditor define it based on the risks involved.

8. If there are multiple economic operators covering the whole biomass chain, will the certificate of the last economic operator only mention the step covered by its certification? Should the verifier or the CA require the operator to show the certifications of the economic operator that were issued for the earlier steps in the biomass chain? Or can a certificate in the last step of the biomass chain only be issued if there were certifications in earlier steps of the biomass chains?

A certificate issued to an economic operator can cover more steps in the supply chain, but this is not necessarily the case. It can happen that the economic operator covers only one step in the supply chain. Proof of sustainability issued by a certified economic operator for a batch of biomass fuel implies that the economic operators of the entire upstream supply chain were certified for the same material and under the same recognised certification system. An economic operator can only accept input material if it is RED II compliant. In the mass balance, the sustainability and GHG emissions savings characteristics for the raw materials and fuels are documented together with the transaction data and passed on from one economic operator to the next through the supply chain.

9. Solid biomass batches usually cannot be kept separate and will be mixed and reattributed. Should a batch and compliance of the batch with RED II criteria be re-established after each step in the biomass chain?

The mass balance is used for this purpose. Article 19 of Implementing Regulation (EU) 2022/996 provides more guidance on the mass balance system and the mixing of raw material and fuel that differ in sustainability and GHG emission savings characteristics. Information on compliance with RED II criteria is transmitted through the whole supply chain.

10. Does all data about the fuel supply chain have to be present on the last proof of sustainability in the compliance chain?

A proof of sustainability usually contains the following information: source stream (type of fuel, type of material), date of issuance of proof of sustainability, place and date of supply, information details on supplier, information on whether proof of sustainability covers the full value chain, availability of each batch, validity of the certificate and date of issuance, quantities of biomass, applicable sustainability and GHG savings criteria.

Not the whole fuel supply chain is described on the proof of sustainability, but it does provide information on compliance of the batch of fuel with RED II criteria.

¹³ Article 10 of Commission Implementing Regulation (EU) 2022/996

11. Can Member States exempt operators from the requirement to have the emission report and compliance with RED II criteria to be verified?

No. The Directive and the AVR require the operator's report to be verified by a verifier accredited by a NAB against the AVR and ISO 14065. In order to check the accuracy of the data and implementation of the MP in the AER verification, the verifier needs to assess the operator's evidence of compliance of RED II criteria. Neither is an exemption from the RED II audit allowed by the RED II.

ANNEX: PRESENTATIONS



EU ETS Monitoring and Reporting – CF Training event

Training Event on Biomass No. 1

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20 October 2022

Set-up of the training

- Topics:
 - EU ETS monitoring & reporting of emissions from biomass – relation to RED II requirements
- Target audience:
 - CAs and verification bodies – dealing with installations (aviation will be discussed in next training)
 - As the topic is relatively new, all are welcome, from newcomers to experienced staff
- Objectives
 - To enable you to check monitoring plans (MPs) and annual emission reports (AERs) of operators using biomass

Agenda 20th October 2022

#	Time	Session
1.	10:00 – 10:15	Opening, welcome and introduction (DG CLIMA)
2.	10:15 – 10:45	Overview MRR requirements for biomass (RED II criteria)
	10:45 – 11:15	Q & A and Discussion
3.	11:15 – 11:30	Coffee break
4.	11:30 – 12:00	RED II - Certification systems - requirements, recognition of national and voluntary schemes
	12:00 – 12:15	Q & A
5.	12:15 – 13:30	Lunch break
6.	13:30 – 14:30	MS case studies <ul style="list-style-type: none"> • Checking processes and procedures • Common challenges • Best practices
7.	14:30 – 14:40	Coffee break
8.	14:40 – 15:25	Certification systems in practice <ul style="list-style-type: none"> • From viewpoint of certification systems • From auditor point of view
	15:25 – 15:40	Q & A
9.	15:40 – 16:00	Wrap-up and close of the meeting (DG CLIMA)

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Agenda 27th October 2022

#	Time	Session
1.	10:00 – 10:15	Opening, welcome and introduction (DG CLIMA)
2.	10:15 – 10:30	Biogas in grids - Requirements
	10:30 – 11:00	Example of a biogas registry and ERGaR
	11:00 – 11:15	Q&A
3.	11:15 – 11:25	Coffee break
4.	11:25 – 11:40	Other Biomass issues: Determining the...
	11:40 – 11:50	Q & A
5.	11:50 – 12:15	Biofuels for Aviation
	12:15 – 12:30	Q & A
6.	12:30 – 14:00	
7.	14:00 – 14:15	Member in assessing biomass requirements - main requirements
	14:15 – 14:30	Verifier's checks on compliance with RED II criteria
	14:30 – 14:45	Q & A
	15:15 – 15:25	Coffee break
10.	15:25 – 15:40	Verifier's checks on compliance with RED II criteria
	15:40 – 15:50	Q & A
11.	15:50 – 16:00	Wrap-up and close of the meeting (DG CLIMA)

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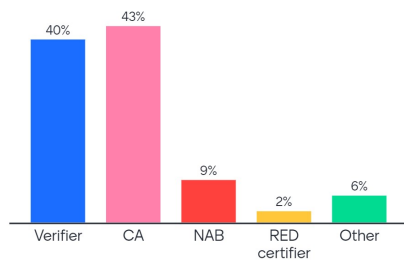


For more information about biogas, CEMS, biofuel for aviation, verification of biomass, ... join the training event on 27 October!

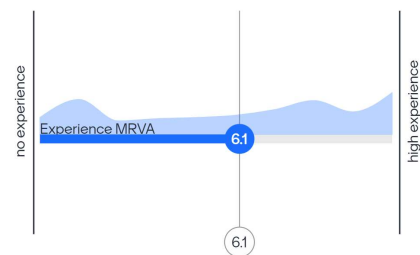
Mentimeter

- What is your role in the EU ETS?
- Your level of experience with EU ETS?

What is your role in the EU ETS?



Your level of experience with EU ETS?



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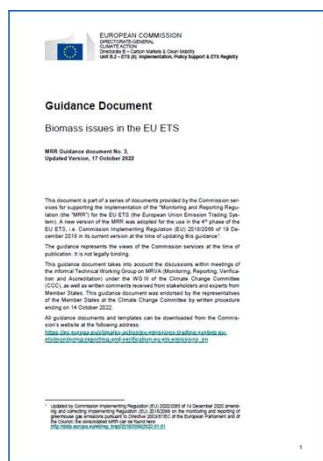


Overview of MRR requirements for biomass

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Guidance document 3



Guidance document 3 – “Biomass issues in the EU ETS” has been published:

https://climate.ec.europa.eu/system/files/2022-10/gd3_biomass_issues_en.pdf

DG CLIMA’s MRVA website:

https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/monitoring-reporting-and-verification-eu-ets-emissions_en

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MRR and RED II

- MRR 2018 (with 2020 and 2022 amendments) contains requirement to apply RED II criteria for biomass/biofuels
- MRR (*Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012*): Consolidated version: http://data.europa.eu/eli/reg_impl/2018/2066/2022-08-28
- RED II (*Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources*): <http://data.europa.eu/eli/dir/2018/2001/2022-06-07>

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Monitoring Reporting Regulation

- Article 38 “Biomass source streams” – Paragraph 5:
- Biomass emissions from combustion can be zero rated if:
 - **Sustainability criteria** are fulfilled → Article 29 (2) to (7) of Directive (EU) 2018/2001 (RED II),
AND
 - **GHG saving criteria** are fulfilled → Article 29 (10) of Directive (EU) 2018/2001 (RED II)
- Biofuels, bioliquids and biomass fuels produced from waste and residues are required to fulfil only GHG saving criteria, not the sustainability criteria
 - However, residues from agricultural, aquaculture, fisheries and forestry have to fulfil both, sustainability and GHG saving criteria

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Definitions I

- Article 3 of the MRR copies the biomass-related definitions from the RED II as follows:
- **‘biomass’** means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste.
- **‘bioliquids’** means liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass;
- **‘biofuels’** means liquid fuels for transport produced from biomass;
- **‘biomass fuels’** means gaseous and solid fuels produced from biomass;
- **‘biogas’** means gaseous fuels produced from biomass;

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Definitions II

- **'waste'** means waste as defined in point (1) of Article 3 of Directive 2008/98/EC [*Waste Framework Directive*], excluding substances that have been intentionally modified or contaminated in order to meet this definition;
- **'residue'** means a substance that is not the end product(s) that a production process directly seeks to produce; it is not a primary aim of the production process and the process has not been deliberately modified to produce it;
- **'agricultural, aquaculture, fisheries and forestry residues'** means residues that are directly generated by agriculture, aquaculture, fisheries and forestry and that do not include residues from related industries or processing;

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Which parts of RED II apply?

- **Sustainability and GHG savings criteria** are relevant not only for liquid, but also for solid and gaseous biomass Art. 29 RED II
- **Verification** of compliance with the sustainability and greenhouse gas emissions saving criteria Art. 30 RED II
- **Calculation** of the greenhouse gas impact of biofuels, bioliquids and biomass fuels Art. 31 RED II

Change to
RED I

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“Land-related” sustainability criteria (1)

- Article 29 Paragraph 2 to 7
 - (2) Operators or national authorities [must] have monitoring or management plans in place in order to address the impacts on soil quality and soil carbon (not for forest biomass)
 - (3) excludes raw material obtained from land with a high biodiversity value, namely land that had a specified status in or after January 2008, whether or not the land continues to have that status:
 - a) primary forest and similar
 - b) highly biodiverse forest and similar
 - c) areas that are nature protected
 - d) highly biodiverse grassland (details in an implementing act).

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“Land-related” sustainability criteria (2)

- Article 29 Paragraph 2 to 7
 - (4) prevents the use of land which was converted from land with high carbon stocks, namely land that had a specified status in or after January 2008 and no longer has that status, in particular wetland and continuously forested areas.
 - (5) excludes biomass from former peatland, except if evidence is provided that no drainage of previously undrained soil is involved.
 - (6) and (7) regulate forest biomass: It must meet certain criteria to minimise the risk of using forest biomass derived from unsustainable production and must meet specified land-use, land-use change and forestry (LULUCF) criteria. Details are given in an implementing act.

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GHG savings criteria

- For **biofuels, biogas consumed in the transport sector and bioliquids**, savings must be
 - at least 50% if produced in installations in operation before 5 October 2015,
 - at least 60% for installations starting operation until 31 December 2020,
 - at least 65% for installations starting operation from 1 January 2021.
- For **biomass fuels** (i.e. solid and gaseous biomass) consumed in EU ETS installations, GHG savings must be
 - at least 70% in installations starting operation from 1 January 2021 until 31 December 2025,
 - 80% for installations starting operation from 1 January 2026.
- Savings relate to *life cycle emissions* compared vs. a given fossil comparator.

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Alignment of EU ETS and RED II

- The applicable RED II criteria have to be met in order to apply an emission factor of zero to biomass.
Criteria not met → treat material like a fossil fuel Art. 38 (5) MRR
- Article 38(5) is invoked by the following articles of the MRR:
 - Article 18: Unreasonable costs
 - Article 19: Categorisation of installations, source streams and emission sources
 - Article 38: Biomass source streams / determination of biomass emission factor
 - Article 43: Determination of emissions by CEMS
 - Article 47: Installations with low emissions
 - Article 54: Specific provisions for biofuels for aircraft operators

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Alignment of EU ETS and RED II

- MRR Article 38(5) has to be applied from 1st January 2022
- Article 38(6) : “... *Member States, or competent authorities as appropriate, may consider as fulfilled the sustainability and greenhouse gas emissions saving criteria ... for biofuels, bioliquids and biomass fuels used for combustion from 1 January 2022 to 31 December 2022*”

In most Member States, RED II criteria have to be applied by operators only from 1 January 2023 (as to be reported in 2024).

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Source streams

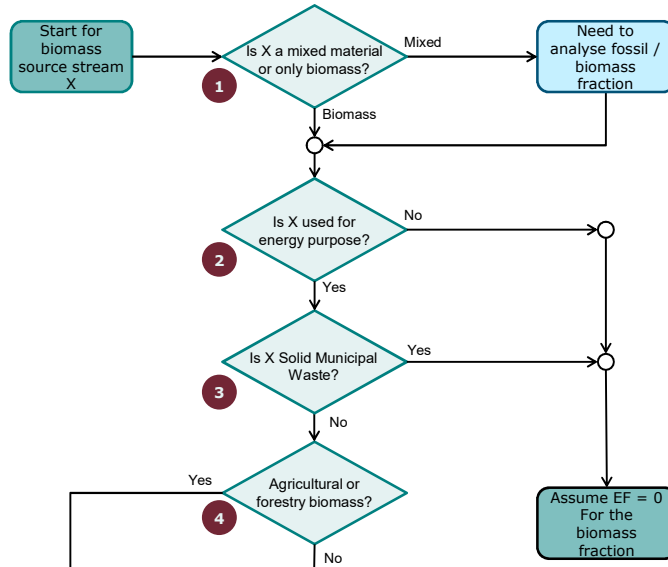
- Combustion / source streams used as fuel:
 - Pure fossil – no RED II criteria apply
 - Pure biomass
 - Emissions zero rated, if compliant with RED II criteria, or if no RED II criteria apply
 - Otherwise: treated like fossil fuels ($EF_{final} = EF_{preliminary}$)
 - Mixed fuels: Consist of at least 2 of the following:
 - Fossil fraction
 - Biomass compliant with applicable RED II criteria
 - Biomass not compliant with applicable RED II criteria

These three fractions are to be reported separately in the annual emissions report
- Process materials, no energy purpose – RED II criteria do not apply

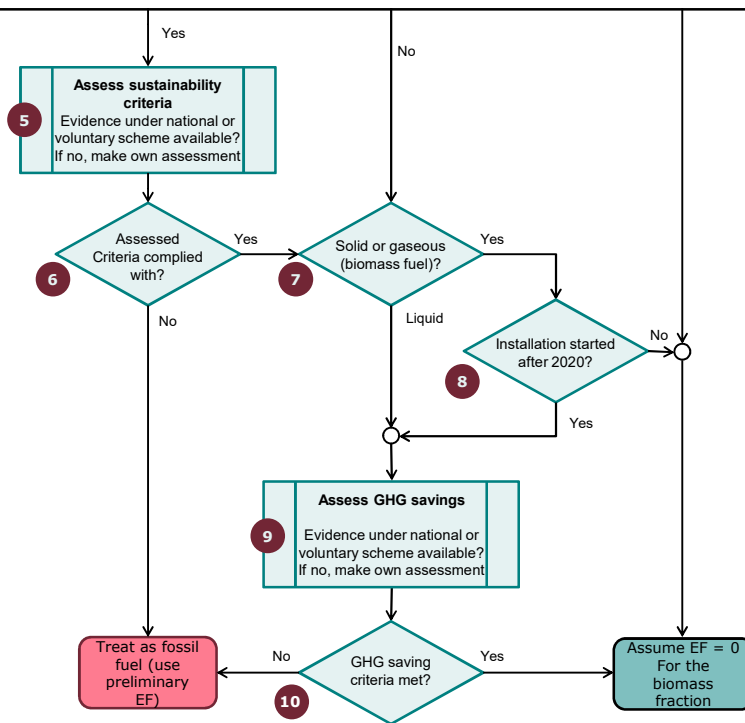
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RED II: Which criteria apply?



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RED II: Which criteria apply? (3)

- Step 1: Source stream consists exclusively of biomass, or is it mixed with a fossil fraction? Possibility to apply an emission factor of zero applies **only to the biomass fraction** of the source stream. Biomass part may have to be split in RED II compliant and non-compliant parts.
- Step 2: Is the source stream used for **energy purposes**? If yes, the following steps are needed. (No: assume EF=0)
- Step 3: If the source stream is **municipal solid waste**, no further criteria need to be taken into account. The **biomass fraction may be zero-rated**.

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RED II: Which criteria apply? (4)

- Step 4: Determine if the source stream is **any type of forest or agricultural biomass**, or “**(produced from) residues from agriculture, aquaculture, fisheries or forestry**”, as for such source streams the “land-related” sustainability criteria (Article 29(2) to (7) of RED II) apply.
- For **other residues or waste** (including all kinds of industrial wastes, if containing biomass), **only GHG savings criteria** need to be complied with.
- For **biomass stemming from animals, aquaculture and fisheries**, Article 29 of the RED II does not list specific land-related sustainability criteria. Operators will have to determine **only GHG savings based in the calculation methodologies** outlined in Annex V and VI of the RED II (therefore go to step 7)

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RED II: Which criteria apply? (5)

- Step 5: Depending on step 4, the (land-related) **sustainability criteria for the production** of biofuels, bioliquids or biomass fuel are to be assessed. The operator can rely on the certification of the used material/fuel under a **national system** or an **(international) voluntary scheme** recognised by the Commission or the installation's (or aircraft operator's) Member State. If no proof of sustainability under a certification scheme is available, the operator would have to perform the assessment of the relevant criteria itself, and get the verifier's confirmation.
- Step 6: If the previous step shows that **relevant sustainability criteria are not complied with**, then the operator has to **treat the material as if it were fossil** (preliminary emission factor becomes the emission factor)

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RED II: Which criteria apply? (6)

- Step 7: If the **source stream is liquid**, the assessment of **GHG savings is mandatory**. Go to step 9.
- Step 8: As the additional requirement for "biomass fuels", i.e. solid or gaseous biomass fuels, applies only to installations starting operation from 1 January 2021, older installations do not have to carry out further assessment.
- Step 9: **Required GHG savings** according to Article 29(10) of the RED II have to be calculated in accordance with Article 31(1) of the RED II.
- If the **GHG savings are above the applicable threshold**, the **biomass can be zero-rated**, otherwise it has to be treated as if it were fossil.

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Beekast - examples

- Please follow link given in chat and answer the multiple-choice questions:
- Which RED II criteria shall apply in the following cases:
 - Limbs & branches (collected in the forest) – the installation started after 2020
 - Bark (collected in the saw mill) – the installation started before 2020
 - An installation uses solid biomass (first time in 2019). In 2023 a new boiler starts operating using a bioliquid. Which criteria are relevant for the bioliquid?
 - An installation changes from coal to wood pellets in 2023. Which criteria are relevant for the pellets?

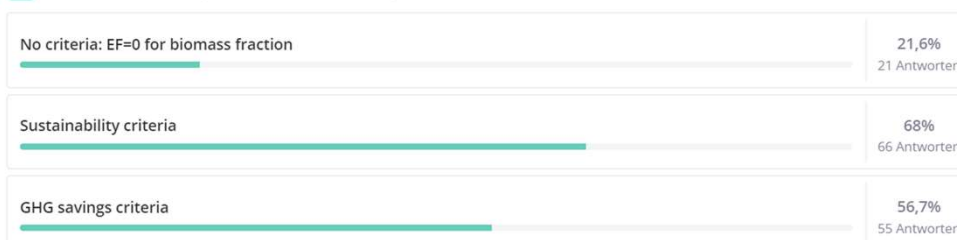
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Example 1

Which RED II criteria shall apply in the following cases:

1 Limbs & branches (collected in the forest) - the installation started after 2020



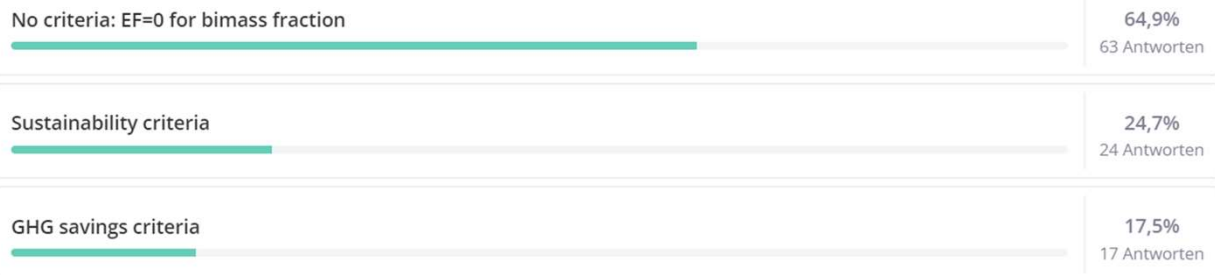
Model answer: The material qualifies as “residues from agriculture, aquaculture, fisheries or forestry”, so sustainability criteria apply. Furthermore the material is solid, so the GHG savings for an installation starting from 2021 onwards apply (70%).

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Example 2

2 Bark (collected in the saw mill) – the installation started before 2020



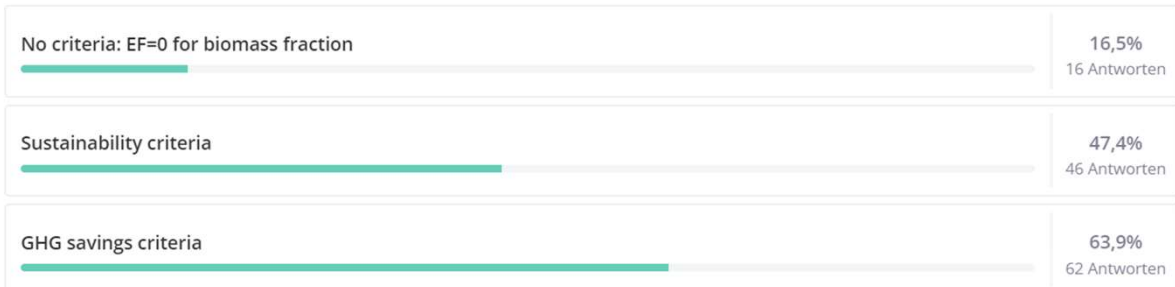
Model answer: The material could be understood as waste (not residue) from forest industries, so the sustainability criteria would not apply. The installation started before 2021, so the GHG savings criterion does not apply.

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Example 3

3 An installation uses solid biomass (first time in 2019). In 2023 a new boiler starts operating using a bioliquid. Which criteria are relevant for the bioliquid?



Model answer: We do not know the material from which the bioliquid has been produced. Therefore no information if the sustainability criteria apply. Regarding GHG savings, Art. 29(10) of the RED II does not give a limit for liquids *used* in the installation, only for *production* of bioliquids. The user of the bioliquid must get information from the producer of the bioliquid whether the applicable GHG savings are complied with.

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Example 4

4 An installation changes from coal to wood pellets in 2023. Which criteria are relevant for the pellets?

No criteria: EF=0 for biomass fraction

8,2%
8 Antworten

Sustainability criteria

74,2%
72 Antworten

GHG savings criteria

61,9%
60 Antworten

Model answer: No information is given for the source of the wood for production of the pellets. Assuming they are produced from an industrial waste, no sustainability criteria would apply, but if "residues from agriculture, aquaculture, fisheries or forestry" are used, the sustainability criteria apply. Due to the switch in the installation to pellets in 2023, GHG savings criteria (70%) apply, except if biomass was already used in other parts of the same installation before.

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RED II criteria: Demonstrate compliance

- Options:
 - National systems
 - Voluntary national or international schemes that the MS accepts
 - By providing all relevant evidence and GHG calculations themselves, having the information appropriately audited (if accepted by MS)

For zero-rating biomass emissions under the EU ETS MRV rules, the burden of proof concerning a biofuel, bioliquid or biomass fuel meeting the applicable sustainability and/or GHG savings criteria remains with the EU ETS operator or aircraft operator!

National systems I

- Currently partly still under development
 - No complete overview available of Member States' national systems on providing evidence of biomass sustainability and GHG savings available. Operators and aircraft operators should obtain information on national systems from the relevant competent authority
- See examples in MS presentations in the afternoon
- The RED II does not explicitly require a Member State to publish dedicated information. However, it is considered best practice to **provide transparent information to operators.**

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National systems II

Art. 30 (6) RED II

- Possibility to notify a national scheme to the Commission for recognition. The relevant information will be published on the Commission website, and all other Member States are required to accept the resulting certificates. (Similar to the case of voluntary international schemes recognised by the Commission)

*However, the use of **international voluntary systems** may be desirable in many cases where the biofuel, bioliquid or biomass fuel is not used in the Member State where it is produced!*

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Voluntary schemes I

- Biofuels, bioliquids or biomass fuels certified under a scheme recognized by the Commission have to be accepted as fulfilling the RED II criteria **in all Member States**.
- Regarding schemes not (yet) recognised by the Commission, Member States may accept those schemes, if they come to their own conclusion that the scheme ensures compliance of the biomass with RED II criteria.
- Member States may have specific provisions (e.g. allowing only schemes recognised by the Commission)
- Operators have to check with their competent authority or national legislation how to provide evidence that the biomass used complies with the RED II criteria (exception: using schemes recognised by the Commission)

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Voluntary schemes II

- **Proof of sustainability** (=declaration of compliance with the scheme) issued by an economic operator certified under a recognised voluntary scheme means that the **emission factor can be zero-rated in the EU ETS**.
- Limitations:
 - Voluntary scheme may be approved only for some fuel types, some of the required criteria, or only regarding some steps of the value chain
 - GHG savings criterion depends on transport distance → required for each site where the biomass is used
 - Some sustainability schemes cover a wider scope → use only certificates which explicitly refer to those “EU RED II compliant versions” of the voluntary schemes
 - Some schemes are recognised with limited geographical scope
 - The Commission’s recognitions of voluntary schemes are usually valid for five years

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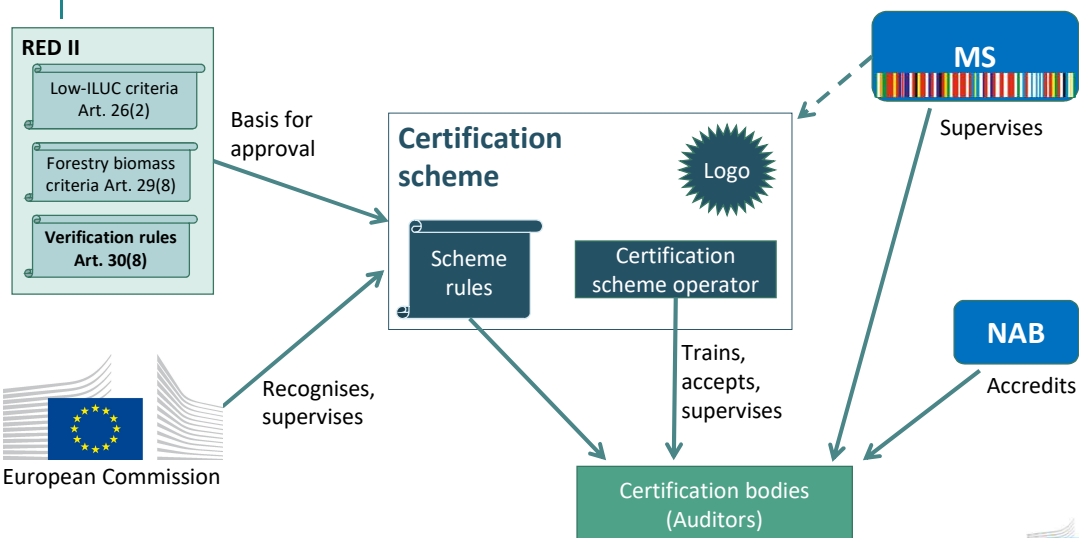
Voluntary schemes III

- Details on all **voluntary schemes recognised by the Commission** can be found here: https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en

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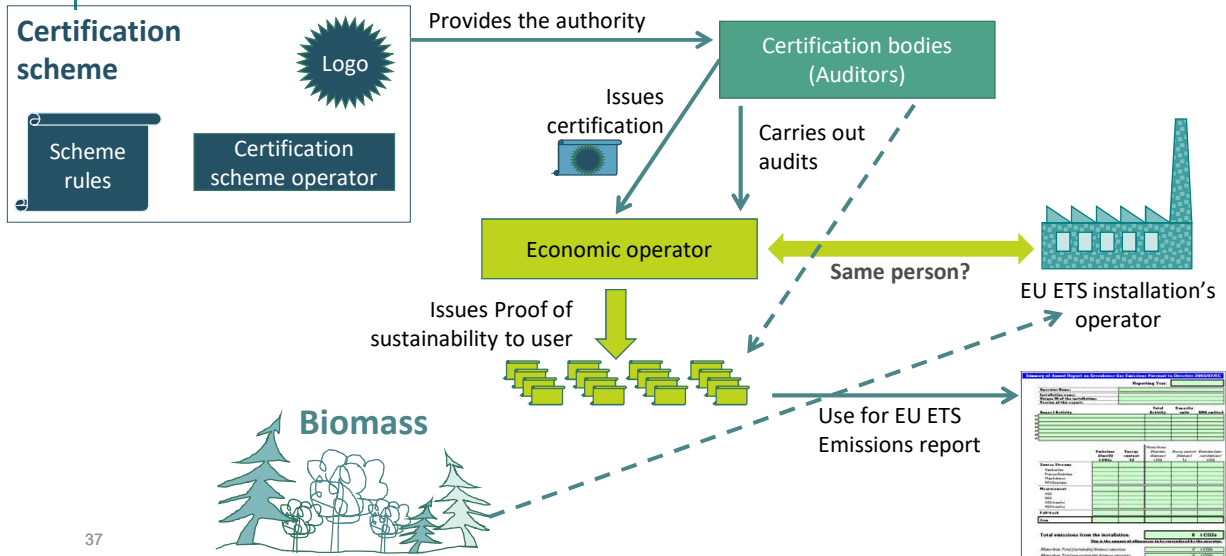
How do RED II certification schemes work? (1)



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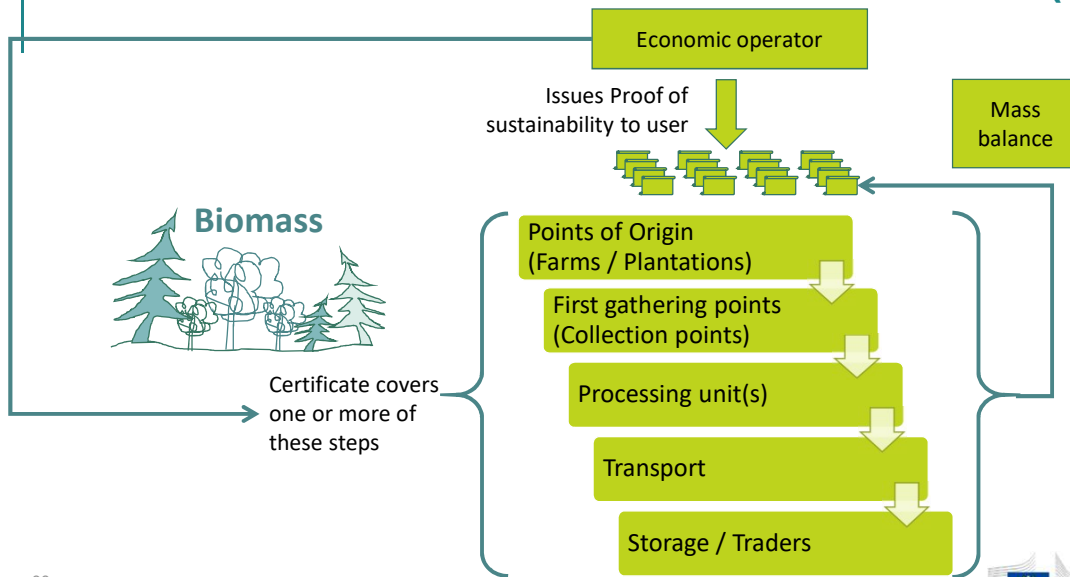


How do RED II certification schemes work? (2)



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How do RED II certification schemes work? (3)



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How do RED II certification schemes work? (4)

- Certificate
 - Certifies that an **economic operator complies** with the rules of the certification scheme
- Proof of Sustainability (PoS):
 - Issued by the economic operator for **confirming that a certain consignment of biomass material, biofuel, biogas or biomass fuel fulfils the sustainability and GHG savings criteria**

EU ETS operators need the “proof of sustainability” for each of the consignments (batches) of biomass used so that emissions from biomass can be zero-rated in the annual emissions report.

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How do RED II certification schemes work? (5)

- Step 1: Certification scheme operators set up their certification scheme’s rules. Rules have to comply with Implementing Regulation (EU) 2022/996 (pursuant to Article 30(8) of the RED II) and must be published by the certification scheme.
- Step 2: Commission checks the scheme
- Step 3: Commission recognised certification scheme → accepted in all Member States (valid for a maximum of five years)
- Also all other certification schemes recognized by the Commission must accept PoS from recognized schemes (e.g. for parts of the value chain already certified before)

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How do RED II certification schemes work? (6)

- Certification bodies (auditors)
 - Accredited by NAB and supervised by MS
 - Not necessarily EU ETS verifiers, but results of RED II audits should be made available to EU ETS verifier.
 - Issues certification to economic operators and carries out audits regarding RED II criteria
- Economic operator
 - Certifies (steps of) the value chain of biomass → certifies only for these operations, and not necessarily the whole value chain (mass balance)
 - Issues proof of sustainability to user (used e.g. for EU ETS emission reporting)

More information about ETS verification in relation to biomass: Training event on 27 October!

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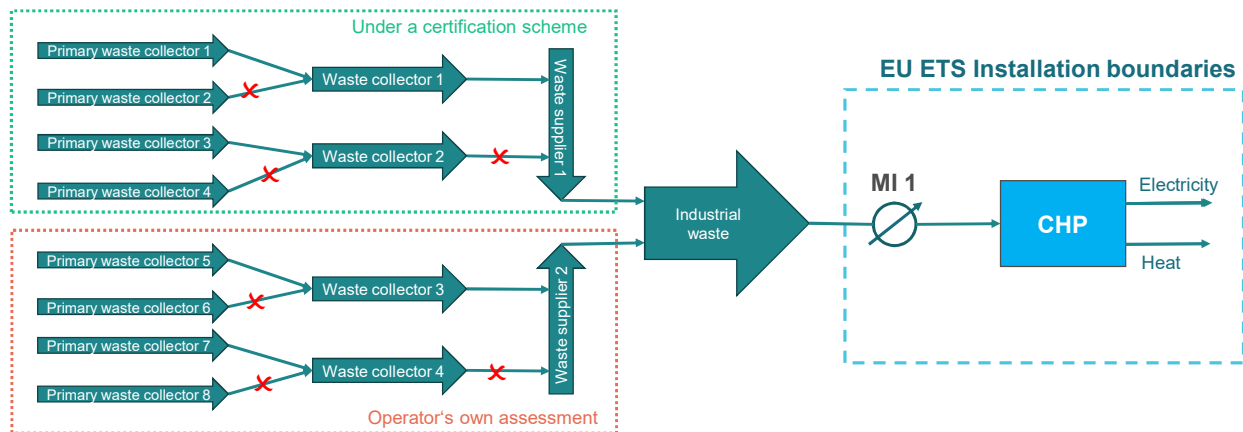


Example

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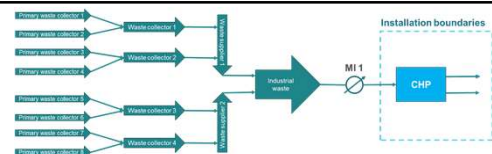
Example



43 X ... indicates lack of information flow (claimed commercial confidentiality)



Example (continued)

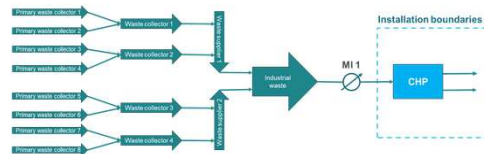


- EU ETS installation is using industrial wastes with a biomass fraction in its combined heat and power (CHP) plant
- The installation has started using biomass after 1 January 2021
→ GHG savings criteria apply
- Wastes consumed by the installation are coming from 2 different waste suppliers. Each supplier receives the wastes from 2 waste different collection centers. Those, in turn, mix wastes from 2 different primary collection waste centers.
- The operator of the EU ETS installation doesn't know who are the primary waste collection centers.

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Example – Questions

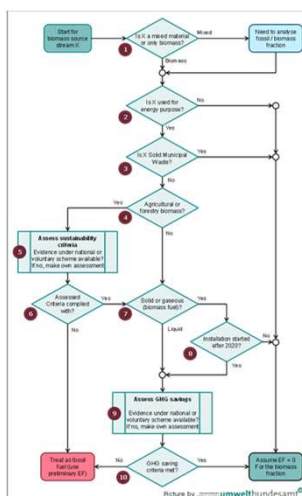


- Q1: Which RED II criteria apply?
- Q2: What evidence should the operator of the EU ETS installation provide so that the biomass fraction of the source stream “industrial waste” could be zero rated when using a voluntary scheme?
- Q3: What evidence should the operator of the EU ETS installation provide so that the biomass fraction of the source stream “industrial waste” could be zero rated if the operator does not use any voluntary scheme (self assessment)?
- Q4: How does GHG savings calculation work?

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Answer Q1: Which RED II criteria apply?

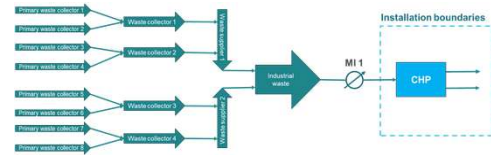


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- Industrial waste = no agricultural or forest material
→ No sustainability criteria
- Solid, started after 2021 (but before 2026)
→ GHG savings >70% required
- Value chain starts at first collection point = primary waste collectors. Life cycle emissions before that point are zero
- Mass balance is required for tracking the biomass fractions in total material mix



Answer Q2

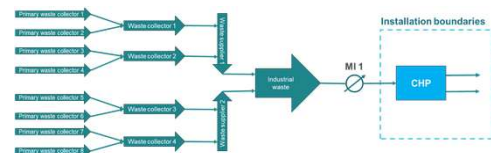


- Q2: What evidence should the operator of the EU ETS installation provide so that the biomass fraction of the source stream “industrial waste” could be zero rated when using a voluntary scheme?
- A: Certifier needs to assess mostly information not received from EU ETS operator, but from the waste collectors – therefore the issue of confidentiality might be avoided):
 - Is it really industrial waste, or are agricultural / forest residues added at some point? Are wastes not intentionally contaminated to become waste?
 - Is the mass balance along the value chain (from one collector to the next) complete and consistent?
 - Are there any processing steps involved which lead to GHG emissions?
 - What are the modes of transport and distances involved between the waste collectors and the EU ETS installation?
- Using the above information, GHG savings can be checked (see Q4)

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Answer Q3



- Q3: What evidence should the operator of the EU ETS installation provide so that the biomass fraction of the source stream “industrial waste” could be zero rated if the operator does not use any voluntary scheme (self assessment)?
- A: The operator must attempt to gather the same information as listed under Q2 (previous slide).
- However, if the waste collectors insist that some required information is not available due to confidentiality, then the operator cannot provide evidence that the RED II criteria are complied with. → **The related fraction of waste** (and if the mass balance is incomplete, probably the whole amount of waste) **must be considered as fossil**.
- *Note: Such situation is unlikely, as there is mutual interest of waste collectors (need to dispose of the waste, i.e. want the EU ETS operator to take it) and operator, who wants to zero-rate the biomass emissions, as otherwise conventional fuels might be the better option. Confidentiality can usually be agreed in delivery contracts etc.*

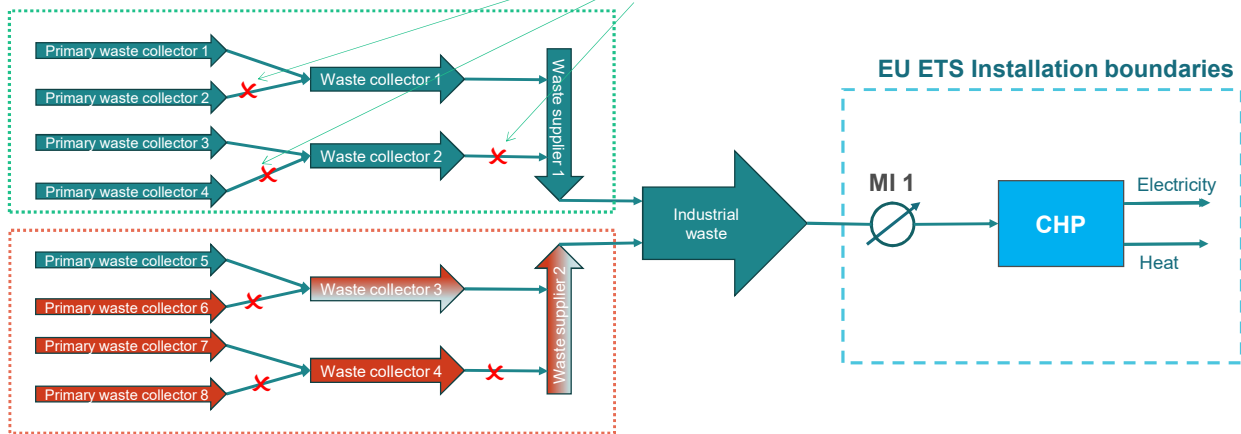
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Answers Q2 + Q3

Under a certification scheme

Assume that auditor can assess this information



Operator's own assessment

X ... indicates lack of information flow (claimed commercial confidentiality)

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Zero-rating possible

Assume fossil



Answer Q4: How does GHG savings calculation work? – Step 1

$$E = e_{ec} + e_l + e_p + e_{td} + e_u - e_{sca} - e_{ccs} - e_{ccr}$$

e_{ec} = emissions from the extraction or cultivation of raw materials;

e_l = annualised emissions from carbon stock changes caused by land-use change;

e_p = emissions from processing; [assumed not applicable in example]

e_{td} = emissions from transport and distribution;

e_u = emissions from the fuel in use;

e_{sca} = emission savings from soil carbon accumulation via improved agricultural management;

e_{ccs} = emission savings from CO₂ capture and geological storage;

e_{ccr} = emission savings from CO₂ capture and replacement.

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Answer Q4: How does GHG savings calculation work? – Step 2

- $E = e_{td} + e_u$
- e_{td} = emissions from transport and distribution: *shall include emissions from the transport of raw and semi-finished materials and from the storage and distribution of finished materials* → In this case all transports from waste collectors to the installation, starting from the primary waste collectors
- e_u = emissions from the fuel in use; Here the total biomass material's CO₂ emissions are set to zero, but emissions from N₂O and CH₄ (default values in the RED II) are then added

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Answer Q4: How does GHG savings calculation work? – Step 3

- Split $E = e_{td} + e_u$ into parts for electricity and heat. Use Formula from RED II section B of Annex VI, point 1(d)
- Compare resulting emissions per MJ separately for heat and electricity against the applicable fossil comparators:
 - $SAVING = (EC_F - EC_B) / EC_F$
 - EC_B = total emissions from the biomass fuel;
 - EC_F = total emissions from the fossil fuel comparator
 - Take into account the generation efficiency η for heating, cooling or electricity: $EC = E / \eta$

Purpose	Value of the fossil fuel comparator
Production of electricity: $EC_{F(e)}$	183 g CO ₂ eq/MJ
Production of useful heat, and heating and/or cooling: $EC_{F(h\&c)}$	80 g CO ₂ eq/MJ

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Thank you for your attention

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RED II – Certification systems: Requirements, recognition of national and voluntary schemes

Galina GENTCHEV, European Commission, DG ENER,
Unit C2 Decarbonisation and Sustainability of Energy Sources

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EC recognised national and voluntary certification schemes (VSs)

- EC-recognised VSs are the main compliance mechanism under REDII;
- National certification schemes can be used by MSs as well but only one such scheme notified and recognised by Commission to date (AACS);
- However, there are national schemes operating nationally without being notified and recognised by the Commission;
- 14 voluntary schemes and 1 national scheme were officially recognised by the Commission to date;
- 1 VS technically compliant but still not formally recognised.

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EC recognised national and voluntary certification schemes (VSs)

- VSs are diverse in scope:
 - ✓ majority certify agricultural biomass: RED II, article 29 (2-5) and (10);
 - ✓ some certify forest biomass: SURE and SBP officially recognised/ KZR INiG technically compliant to extend its scope on forest biomass but no formal decision published yet;
- All 15 formally recognised certification schemes will have to update their documentation to be compliant with the Implementing Regulation (IR) on sustainability certification adopted in June 2022 in order to keep their status of recognised schemes.
- All the information on the process, assessment protocol, and status of certification schemes can be accessed at:

3

[Voluntary schemes \(europa.eu\)](https://europa.eu)



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National & Voluntary schemes assessment process under REDII

- Technical assessment uses a publicly available Assessment Protocol template (published in 2020) which covers all relevant aspects: – Land criteria (agriculture and forest) – GHG emission savings – Mass balance – Audit Quality and Scheme governance;
- Assessment Protocol was updated in line with Implementing Regulation on sustainability certification;
- All voluntary schemes already re-submitted their updated documents for re-assessment by the Commission.
- The re-assessment process is expected to be completed in Q1 2023.

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Main areas covered in the IR on certification

- General rules on governance, internal monitoring, complaints procedures and transparency of voluntary schemes (Articles 3-9);
- Specific rules on audit process, audit scope, qualifications of auditors and audit supervision (Articles 10-17);
- Specific rules on implementation of the mass balance system and the Union database, as well as on establishing GHG emissions and biological fraction of fuels (Articles 18-23); **[see second part of this presentation]**
- Specific rules on compliance with the requirements on low ILUC (Indirect Land Use Change) certification (Articles 24- 27).

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Governance, internal monitoring, complaints procedures and transparency of voluntary schemes

- Ensure balanced representation of stakeholders, mitigate risk of conflict of interest in decision-making, including integrity of auditors, and access to technical support;
- System to deal with non-conformities, based on a harmonised definition;
- Minimum standards for VSs on operating a monitoring system on the quality of the audit process: Its results summarised in annual activity reports;
- Mandatory transparency requirements about minimum information to be made available on the website of VSs.

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Audit process, audit scope, qualifications of auditors and audit supervision

- Levels of assurance depending on risk profile of Economic Operators (EOs);
- Four eyes principle: technical review of audit results;
- Annual audit review- re-certification or surveillance audits;
- Classification of audit findings and remedies;
- Minimum content of the audit reports;

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Audit process, audit scope, qualifications of auditors and audit supervision

- Qualification and technical expertise of auditors, special focus auditing of residues/ waste, mass-balance, GHG calculation, highly biodiverse grassland and group audits approach;
- Minimum standards for keeping record by EOs, VSs and Certification Bodies (CBs).
- Technical support and training for auditors to be ensured by VSs and reviewed based on the results of internal monitoring system;

8



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Audit process, audit scope, qualifications of auditors and audit supervision

- Accreditation of CBs to ISO standards (ISO 17065, ISO 14065) and accreditation or recognition to the scope of RED II or the VSs (alternative option for independent oversight upon approval by competent authorities of MSs);
- Cooperation in audit supervision of CBs by MSs.
- Supervision of VSs by the Commission: annual activity reports and notification of substantial changes.

9



9

Implementation of mass balance system (MBS) and Union database, Calculation of GHG emissions and biological fraction of fuels

- Requirements for data entry and verification in the Union Data Base (UDB);
- Specific rules for implementing the MBS: period of net MB, concept of product group;
- Specific rules for calculating GHG emissions: standard values, methodology on E_{sca} * and cultivation emissions.
- Specific rules on determining wastes/ residues: positive list, monitoring of residues from agriculture;
- Reference to the methodologies on RFNBOs*, RCFs* and co-processing.

* E_{sca} = *emission savings from soil carbon accumulation via improved agricultural management*
 RFNBOs = *renewable liquid and gaseous transport fuels of non-biological origin*
 RCFs = *recycled carbon fuels*

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Compliance with the requirements on low ILUC certification

- Streamlined rules on the process of application and certification, based on an on-site baseline audit to verify the management plan.
- Subsequent regular annual audits to ensure correct implementation;
- Proof of additionality if measures applied on abandoned or severely degraded land or by small holders, based on definitions,
- In all other cases, additionality to be proven by applying either a financial attractiveness or barrier analysis assessment.
- Method for calculating the additional biomass eligible for Low ILUC certification.

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Some information on steps in Implementing the IR on sustainability certification

- The Commission carried out technical meetings dedicated to specific topics in order to support the voluntary schemes with the implementation of the new rules (e.g. E_{sca} methodology, Implementation of the Mass-balancing system, etc.);
- CA-RES task force was set up to support the initial process of reflection on the MSs side on how to implement the provisions of article 17 on cooperation of MSs competent authorities in supervision of CBs.

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Thank you for your attention!

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Implementation of the mass-balance system (MBS)

Article 19 of IR

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Article 19.2(a)-(e): The concept of a mixture

- A single MBS can be applied only if the raw materials or fuels can be considered part of the same mixture, which means being in one the situations below:
 - physically mixed in a container, at a processing or logistical facility, or at a transmission and distribution infrastructure or site;
 - physically identical/ not mixed/ but stored in the boundaries of the MBS;
 - belong to the same product group and stored in the boundaries of the MBS.

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Article 19.2(a)-(e): The concept of a mixture

- Special additional requirement for raw materials- to be considered part of a mixture they have to belong to the same product group, except where the raw material is mixed for the purpose of further processing (processing site).
- Fuels introduced into a logistical facility or a transmission or distribution infrastructure are considered part of a mixture only if that infrastructure is interconnected- to cover the case of gaseous fuels part of the interconnected EU grid or liquid fuels part of an interconnected pipes infrastructure!
- EOs to keep separate mass balances for raw materials and fuels not considered part of a mixture. Transfer of sustainability and GHG emissions saving characteristics and sizes between different mass balances not allowed!

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Article 19.2(a)-(e): The concept of a Product Group

- ‘product group’ means raw materials, biofuels, bioliquids, non-gaseous biomass fuels with similar physical and chemical characteristics and similar heating values or gaseous biomass fuels, and LNG with similar chemical characteristics that all are subject to the same rules set out in Articles 7, 26 and 27 of Directive (EU) 2018/2001 for determining the contribution of biofuels, bioliquids and biomass fuels towards achieving the targets for renewable energy;

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Objective of the MBS: Keep separate chain of custody and traceability for raw materials that are treated differently under RED II until the production site!

Practical examples

- Raw material for 1st generation biofuels can be mixed: rapeseed oil and sunflower oil on a site can be considered a mixture- free allocation of sustainability characteristics (since part of the same product group);
- REDII sub-target is included in the definition of product group- rapeseed oil, palm oil and UCO on a site cannot be considered part of a mixture: different MBSs to be applied!
- However, any biodiesel feedstock on a site to be processed for biodiesel can be mixed- free allocation of the total available sustainability characteristics to the outgoing by-products: e.g. FAME (Fatty Acid Methyl Ester)!
- Sustainability characteristics can be allocated freely for physically identical feedstock like low ILUC and high ILUC palm!



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Objective of the MBS for gaseous fuels: Allow for some flexibility but avoid any double counting/ disclosure!

Practical examples

- No traceability of molecules but net MB of injected and withdrawn volume of sustainable and renewable gas!
- Case of LNG:
 - ✓ some flexibility allowed if LNG and bio-methane are part of the same interconnected infrastructure, according to the definition of the IR- transfer of sustainability and GHG emission saving characteristics possible!
 - ✓ in such a case conversion factors and GHG emissions from liquefaction to be taken into account in a LCA approach!

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Article 19.2(f)- (i): Scope and accountancy of inputs/ outputs in the MBS

- Mass balance system (MBS) to cover all information about the sustainability and the GHG emissions characteristics and quantities of raw material and fuels (including the quantities of raw material and fuels for which no sustainability or GHG characteristics have been determined);
- Consignments of raw material or fuel delivered to an EO outside of the certification system (not participating in a voluntary scheme or national scheme) to be booked by withdrawing an equivalent quantity of raw material or fuel AND the type of fuel shall correspond to the physical nature of the raw material or fuel delivered (i.e. free allocation of sustainability characteristics for these consignments not allowed!);

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Article 19.2(f)- (i): Scope and accountancy of inputs/ outputs in the MBS

- Consignment placed on the market (i.e. comply with an obligation placed on a fuel supplier by a Member State) to be withdrawn from the mixture of the mass balance as consumed!
- If biofuels, bioliquids or biomass fuels blended with fossil fuels, the information about the sustainability and GHG emissions saving characteristics assigned to the blend shall correspond to the physical share of the biofuel, bioliquids or biomass fuels in the blend.
- For biofuels and bioliquids, Member States have the option to use the methods under Article 23 to physically check the bio-share in the blend!

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Article 19.2(j)- (k): Allocation sustainability information in the MBS

- Sustainability and GHG emissions saving characteristics of a consignment of raw material or fuel considered as a set.
- Free allocation of the sets of sustainability and GHG emissions saving characteristics as long as they are not split and the mass balance is achieved over the appropriate period of time;
- No use of average GHG values is allowed!
- Include information on whether support has been provided for the production of the fuel or fuel precursor, and if so, the type of support;

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Article 19.2(I): Timeframe to achieve net MB

- General rule: 3 months all economic operators;
- Specific case of primary producers of agricultural biomass and forest biomass and first gathering points: 12 months
- Flexibility of defining the start and end of the period:
 - ✓ Calendar year (or the four quarters of the calendar year);
 - ✓ Economic year used for bookkeeping purposes;
 - ✓ Another starting point (choice to be clearly indicated and applied consistently).

23



23

Article 19.2(I): Timeframe to achieve net MB

- Achieving net mass-balancing:
 - ✓ At the end of the mass balance period, the sustainability data carried forward should be equivalent to the physical stock in the container, processing or logistical facility, transmission and distribution infrastructure or site!
 - ✓ Sustainability data not assigned to consignments beyond the physical stock at the net mass balancing date to be cancelled!

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24

Article 19.2(m): Transfer of sustainability data

- Voluntary schemes to specify the minimum set of sustainability and GHG emissions saving characteristics, (IR, Annex I) to be passed down the supply chain as well as other information necessary to trace the consignments!
- For liquid or gaseous fuels part of an interconnected infrastructure and subject to the same MBS- tracing of respective sustainability and GHG emissions saving characteristics assigned to the consignments only entering and exiting the interconnected infrastructure (inside trading not covered).
- Voluntary schemes to ensure that economic operators correctly enter all relevant information in the Union database!

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Thank you for your attention!

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EU ETS AND RED II IN CZ

Jiří Chrpa

Emission Trading Unit, Ministry of the Environment, CZ

Webinar

20th October 2022



USE OF BIOMASS IN CZ (EU ETS)

- **EU ETS Installations in CZ in 2021 (small annual increase):**
 - 61 out of 247 (24,7 %) installations using biomass;
 - No or very limited share of biomass materials non complying with RED II (no oversea import etc.)
 - Sustainable biomass emissions: 6 432 871,90 t CO₂e
 - Fossil emissions: 57 678 273 t CO₂e

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RED II IMPLEMENTATION IN CZ

- *Ministry of Industry and Trade implements RED II*
- *Ministry of the Environment is responsible for EU ETS*
- *Act on „Supported Energy Sources“*
 - *Implements the criteria from RED II, referred to in Regulation 2066/2018, Art. 38*
- *Voluntary schemes, currently 3 available on the market in CZ (ISCC, SURE and KZR INiG); no national scheme*
- *Complications:*
 - *Transitional provisions are discussed to be adopted in the Act on Supported Energy Sources, postponing the deadline for certification, which is, however, a proof of sustainability from the EU ETS point of view*
 - *Limited number of schemes available, some of them not yet approved by the European Commission*
 - *Administrative burden and significant costs for small EU ETS operators*
 - *Overloaded certifiers, language barrier (Polish, English, German)*

4

GUIDANCE DOCUMENTS AND INTERPRETATION OF THE RULES – FLEXIBILITY FOR 2022

- **Transition period according to Art. 38. (6)**
 - *CZ (also for EU ETS) temporarily accepts a „Declaration of consent“ with the sustainability criteria in 2022 provided by the operator; nevertheless, fuels obviously violating the RED II criteria would not be considered as zero rated in EU ETS*
 - *No fuels in a sharp non-compliance with RED II identified*
 - *Weak (no) support in legislation, with an exception of Art. 38 (6)*

GUIDANCE document nr. 3 and Regulation 2066/2018, Art. 38 (6): *By way of derogation from paragraph 5, first subparagraph, Member States, or competent authorities as appropriate, may consider as fulfilled the sustainability and greenhouse gas emissions saving criteria referred to in that paragraph for biofuels, bioliquids and biomass fuels used for combustion from 1 January 2022 to 31 December 2022.*

5

GUIDANCE DOCUMENTS AND INTERPRETATION OF THE RULES – RECOGNISED SCHEMES

- CZ accepts voluntary schemes recognized by the European Commission
- Nevertheless, at least in the transition year 2022 and (partly) 2023, the schemes may be accepted even for the 2022/2023 time period (part of the reporting year) before the approval by the Commission
 - Condition: the biomass fuel must be the same for the whole period, with all clearly traceable processes complying with the (later) obtained certification under a certain scheme
 - Otherwise not possible to obtain the proof of sustainability for some biomass; unequal treatment based on the date of approval of a scheme or certification

GUIDANCE document nr. 3: Details on all voluntary schemes recognised by the Commission can be found on the Commission's website³¹. Regarding **schemes not [yet] recognised by the Commission**, Member States may accept those schemes, if they come to their own conclusion that the scheme ensures compliance of the biomass with RED II criteria. Under the same conditions, the Member States may continue the acceptance of certificates issued by **schemes approved under the RED I**. However, Member States may have also other specific provisions in their legislation, e.g. allowing **only schemes that have been recognised by the Commission**. Hence, except when using schemes recognised by the Commission, operators will always have to check with their competent authority or national legislation how to provide evidence that the biomass used complies with the RED II criteria.

6

GUIDANCE DOCUMENTS AND INTERPRETATION OF THE RULES – ALTERNATIVE GUARANTEE OF SUSTAINABILITY

- **Alternative guarantee of sustainability by the operator, confirmed by the verifier**
 - No support in legislation, a „last resort“ solution... but might be accepted after an in depth check
 - The biomass fuel would have to clearly comply with RED II, based on traceable data about consumption, purchase, origin etc.

Options according to GUIDANCE document nr. 3:

- 1) All evidence (i.e. the "proof of sustainability") is provided by means of voluntary or national schemes by economic operators other than the EU ETS installation which consumes the biomass; **(POSSIBLE in CZ)**
- 2) The operator becomes an "economic operator" certified by a recognised voluntary or a national scheme; **(POSSIBLE in CZ)** or
- 3) The operator assesses the applicable sustainability and/or GHG savings criteria itself, if the (administering) Member State's legislation allows this approach. **(NOT CLEAR IN CZ)**

GUIDANCE document nr. 3: Competent authorities may require the operator to use a recognised scheme, where one is available. If no proof of sustainability under a certification scheme is available to the operator, **the operator would have to perform the assessment of the relevant criteria himself**, and get the verifier's confirmation, provided the national legislation and the competent authority allow this in the Member State where the biomass is used (in case of aircraft operators, the administering Member State).

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THANK YOU FOR YOUR ATTENTION!



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**MINISTÈRE
DE LA TRANSITION
ÉCOLOGIQUE**

*Liberté
Égalité
Fraternité*

RED II IMPLEMENTATION FOR ETS INSTALLATIONS IN FRANCE

20/10/2022

Anais VEDOVATI

Policy Officer

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Direction générale de l'énergie et du climat/Service du climat et de l'efficacité énergétique/Sous-direction de l'efficacité énergétique et de la qualité de l'air/Bureau de la qualité de l'air

1

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Overview of biomass installations in France

- **2022 campaign for 2021 emissions**

Total number of installations in France : 1056

Number of installations using sustainable or non-sustainable biomass : 268

Bioliquid source streams	Solid biomass source streams	Biogas	Waste from biomass source streams
40 (~28 installations)	280	59	68 (with 35 also included in solid source streams)

RED II implementation :

Number of ETS installations using biomass for the first time in 2021 : 12

Total number of installations that would need to prove GHG reduction criteria : 12 solid or gaseous biomass + 28 bioliquid + new installations using biomass for the first time in the coming years

Total number of installations that would need to prove sustainability criteria : data not available yet

Direction générale de l'énergie et du climat/Service du climat et de l'efficacité énergétique/Sous-direction de l'efficacité énergétique et de la qualité de l'air/Bureau de la qualité de l'air

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RED II implementation in France

- **Timeline for RED II implementation**

National transposition of RED II Directive in the “Code de l’Energie” finalised :

- “Ordonnance” published : 03/03/2021
- “Décret” published : 30/12/2021
- “Arrêtés ministériels” (to clarify specific points on implementation) : 5 ministerial orders soon to be published

- **RED II implementation in the EU ETS**

- Article R283-1 from the “Code de l’Energie” : Only proofs from national scheme or voluntary schemes recognised by the Commission are accepted

- But there is no national scheme in France

⇒ Only proofs from voluntary schemes recognised by the Commission will be accepted

Some sectors are still working on integrating a voluntary scheme recognised by the Commission (example: biomethane and wood sector)

- Regulation 2022/388 : We will consider as fulfilled all sustainability and GHG emissions saving criteria for bioliquids and biomass fuels used for combustion during the 2023 campaign for 2022 emissions.

3

Lessons learnt from RED I criteria for bioliquids

- **Training and knowledge of Renewable Energy Directive for ETS operators, verifiers and CAs**

Complicated subject that needs lots of explanation - time consuming

Difficulties for the classification of the material into the category of biomass or waste or residue :

- ⇒ Operators claiming they fit into one definition only (for example residue, and then claim that they cannot be also a bioliquid)
- ⇒ Material with different states (with temperature)

- **Proofs received from operators**

Usually no problem to receive a sustainability proof from a voluntary scheme

Difficulties to obtain the GHG saving criteria proof from operators that do not have to demonstrate sustainability criteria

⇒ In phase 3, we received calculations from operators directly : difficulties for CA to assess the calculations (ETS inspectors are different from RED inspectors, with no specific RED training)

4

Main difficulties for RED II implementation

- **Identify RED II installations in the ETS**

No list of RED II installations (and criteria applicable) yet to compare with EU ETS installations

⇒ Case by case assessment by ETS CA which criteria need to be fulfilled.

⇒ Some ETS installations may have to demonstrate RED II criteria even if the installation is not under RED II implementation. For example : an ETS installation with a gas boiler of 25 MW, and a solid biomass boiler of 14 MW, not under RED II but as it is included in an ETS installation, may need to prove sustainability or GHG emissions saving criteria.

- **Classify each material**

Classification of the material into the category of solid/gas/liquid biomass or waste or residue

⇒ GD 3 will be very helpful, but still complicated for borderline cases for ETS CA

Determine if the material is from agriculture and forestry

⇒ Depends of the origin, and the purpose of the material (raw material, residue or waste) ?

Main difficulties for RED II implementation

- **Check the respect of criteria**

In GD 3, detailed example of waste produced on site, with usually no criteria to be fulfilled.

For waste (and more broadly all biomass) not produced on-site, for which GHG reduction criteria need to be fulfilled but no sustainability criteria apply.

- No possibilities for the operator to provide his own evidence

- May be complicated to obtain the proof from a voluntary scheme (from our lessons learnt)

⇒ It is possible that biomass will be counted as fossil emissions for ETS installations unable to prove the GHG saving criteria because they do not have a proof from a voluntary scheme recognised by the Commission.

⇒ Important stake for ETS CA

Practical cases

- **Sunflower husk**

Industrial installation producing sunflower oil from sunflower seeds, and using sunflower husk for combustion.

Should the sunflower husk be considered as coming directly from agriculture, as a residue/waste from agriculture, or as processed, and thus an industrial waste or residue ?

Possibilities :

- 1) The sunflower seed with husk comes from agriculture directly. Is it considered as an industrial residue if the seed and the husk are separated on-site (and thus no sustainability criteria apply), or as a residue from agriculture (and thus sustainability criteria apply) ?
- 2) The sunflower husk was turned into granules or tablets before arriving to the ETS installation. In that case it should not be considered as a residue from agriculture in line with section 9.5.9 of GD3 ?

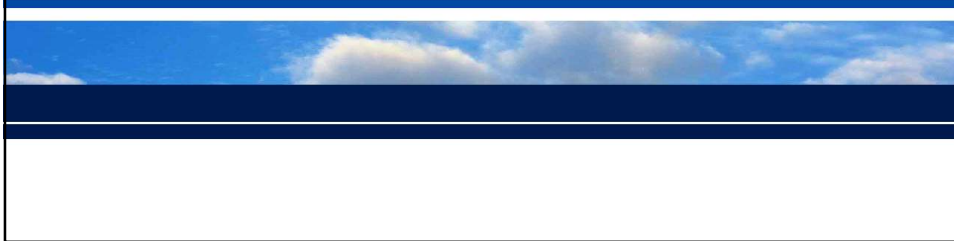
- **Sawdust**

Industrial installation producing wood furniture from wood directly, and using the sawdust for combustion (or the sawdust is used in another ETS installation for combustion).

Should the sawdust be considered as a residue, or waste from forestry, or as an industrial residue or waste?

RED2 implementation in EU-ETS

The Netherlands



Key points Dutch implementation

1. Biogas bought via the national grid based on purchase records implemented in 2022
2. For all other biomass: in the first instance a 'temporary' implementation applicable for 2023 and 2024
 - Achieve a balance between achievability for installations and meeting the requirements laid down in the EU-ETS and RED2
 - Based partly on the national subsidy rules for sustainability of biomass for energy purposes
3. Further refinement of the implementation will include lessons learnt and accommodate changes in European directives and national initiatives

National implementation

Cat.	Type biomass	Criteria derived from	Applicable criteria	Demonstration
1	<i>Pellet form biomass (all biomass materials)</i>	The national subsidy framework	Sustainability & ILUC as applicable GHG reduction	Conform the national subsidy framework for pellet type biomass
2	<i>Biogas via national grid</i>	According to the RED2 criteria made applicable through the EU-ETS MRR	As applicable: Sustainability & GHG reduction	Via national database (Vertogas)
3	<i>Liquid biomass (all biomass materials)</i>			Conform the national subsidy framework for biomass that must meet RED2 criteria
4	<i>Biomass from agriculture, forestry, fishing and aquaculture (including residues)</i>		GHG reduction	EU ETS monitoring plan (MP) & verification
5	<i>Other wastes & residues</i>	>2021	None	EU ETS monitoring plan (MP)
		<2021		No criteria applicable in EU-ETS

National subsidy frameworks

- National legislation for the use of biomass in pellet form set up in 2018 and used for subsidy.
 - Transcribes applicable criteria, in line with RED2. ILUC and GHG savings applicable.
 - Transcribes the accepted certification schemes per biomass type, including nationally approved schemes
 - Defines a 'verification per delivery' route accepted under certain conditions.
- National legislation for biomass in other forms set up for application from 2021
 - Translates the RED2 criteria applicable per biomass type
 - Transcribes the accepted certification schemes per biomass type
 - Defines a non-certification route for sewage sludge and used wood

Demonstration

According to national subsidy rules

- Certification of supply chain and end-user required.
 - Each batch covered by Proofs of Sustainability (PoS) from a scheme approved by the EU
 - For wood from forestry RED2 schemes approved nationally are accepted
- A dedicated verifier (CBI) checks the PoS's at the end of the year and provides a statement (CJV)
- The EU-ETS verifier uses the CJV to assess the correct application of the zero emission in the emissions report

Demonstration

Via national database (Vertogas)

- Applicable for biogas added to the national grid in The Netherlands
- Certification of supply chain and producer required. Certification of end user not required
- Only certification schemes approved by the EU accepted
- The EU-ETS verifier uses the national database to assess the correct application of the zero emission in the emissions report

Demonstration

Via monitoring plan

- Only relevant for installations using wastes and residues not from agriculture, forestry, fisheries or aquaculture, burning biomass for the first time after 31st December 2020
- Assessment of GHG savings criteria described in monitoring plan
- The EU-ETS verifier assesses the correct application of the zero emission factor in the emissions report based on the information in the monitoring plan and purchase records

Thank you for your attention!

The logo for the Dutch Emissions Authority (nea) features the lowercase letters 'nea' in a bold, dark blue, sans-serif font. To the left of the letters, there are three horizontal dark blue bars of varying lengths, stacked vertically, which serve as a graphic element of the logo.

Nederlandse Emissieautoriteit

Dutch Emissions Authority



1

OVERLAPPING RED-CRITERIA

EU ETS DANISH RE LEGISLATION

INSTALLATION COVERED BY EU ETS	INSTALLATION COVERED BY DANISH RE-LEGISLATION	INSTALLATION COVERED BY BOTH EU ETS AND DK LEGISLATION
<ul style="list-style-type: none">- Must comply with Directive 2003/87/EC and the MRR.- Must at least comply with the minimum requirements of the RED-II directive.	<ul style="list-style-type: none">- Must comply with the Danish legislation.- The criteria introduced in the RE-legislation can be stricter than those in the RED-II directive	<ul style="list-style-type: none">- Must comply with the Danish legislation.


Danish Energy Agency

11/17/2022

Page 2


2

HOW TO COMPLY WITH RED-II IN DK?




INTERNATIONAL VOLUNTARY SCHEMES

- Operator uses biomass from a certified supplier
- Proof of sustainability is verified during ETS audit




NATIONAL SCHEMES

- Temporarily approved schemes (2023)
- Temporary approval ceases if the Commission rejects application for EU-approval



OPERATORS PROVIDE EVIDENCE



- Operators provide all necessary evidence and GHG calculations
- This evidence is audited by RED-II auditor

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3


VERIFICATION OF RED-CRITERIA

Biomass from certified supplier:

-  If RED-II or DK legislation requirements are covered by a scheme → Only ETS verification
-  ETS-verifier checks the evidence provided by the certified biomass supplier

Biomass from **non**-certified supplier:

-  RED-II audits are carried out by RED-II auditors
-  RED-II audit report is made available to the ETS verifier
-  Currently, no ETS verifiers meets the required competencies for RED-II audits

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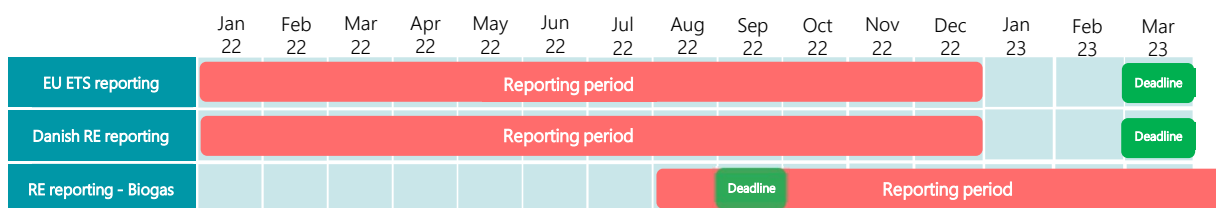
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RED-II ISSUES – REPORTING/VERIFICATION DEADLINES

Pre-approval of compliance with RED-II may be necessary due to:

- Matching deadlines for ETS and RE reporting
- Staggered RE reporting period for biogas



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Biogas from the gas grid

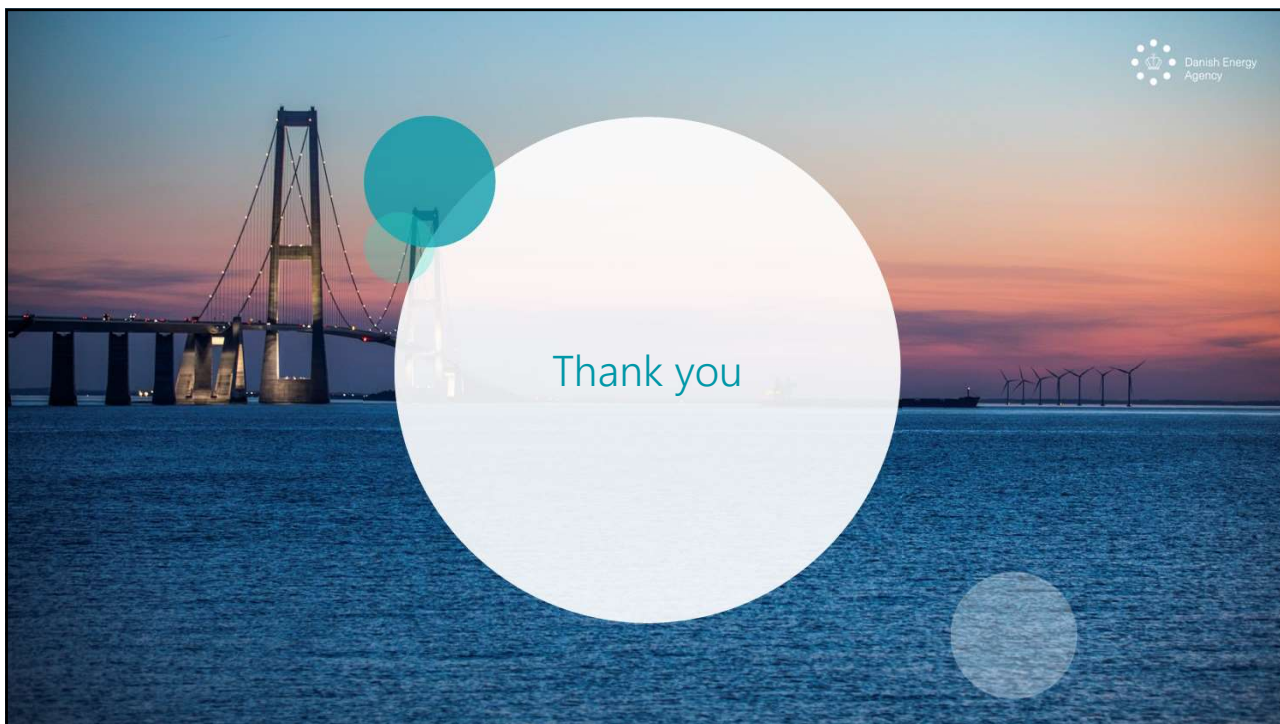


- Biomethane (bionatural gas) is a separate source stream in the MP
- Double counting is avoided by immediate cancellation of GO's in the Danish GO registry, when biomethane is sold to an end user
- Cancelled GO's are compared with purchase invoices for the gas
- Most biomethane suppliers in DK are certified by voluntary schemes

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8

Implementation of RED II in the ETS in the Flemish Region

State of play

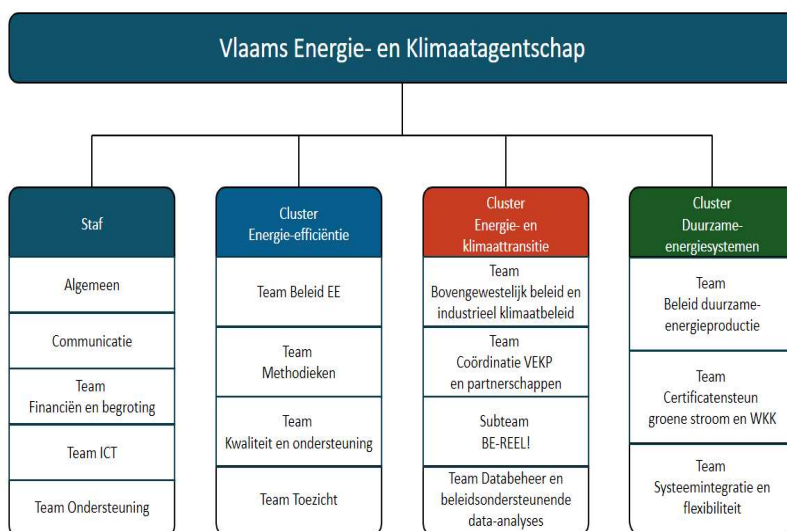


VLAAMS
ENERGIE- &
KLIMAATAGENTSCHAP

Tomas Velghe
Compliance Conference
Thu 20-Oct-2022

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Short about VEKA



- ▶ stands for Vlaams Energie- en Klimaatagentschap (VEKA), i.e. Energy and Climate Agency of Flanders
- ▶ since 1 January 2021
- ▶ on the basis of Flemish coalition agreement
- ▶ purpose: powerful Flemish energy and climate policy
- ▶ at the moment: +/- 150 colleagues
- ▶ more info: https://www.energiesparen.be/over_veka

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Implementation of ETS in the Flemish Region

Good to know

- MP and MMP: drafts from operators are checked by 'our' VBBV (Benchmarking Verification Bureau of Flanders) and approved of by VEKA
- AER and ALC: verification by external verifiers, and approval by VEKA
- The Flemish region uses:
 - Excel-templates (DG CLIMA) for MP and MMP
 - own reporting tool for AER (online ; with access for external verifiers)
 - Excel-template (DG CLIMA) for ALC (together with "upload" facility)
- Considering to shift to reporting tools from DG CLIMA

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Implementation of RED II under ETS in the Flemish Region

Basic information

- Chosen to implement RED II as from 1 January 2023 (and not 2022)
- Awaited (a long time) endorsement of Guidance Document 3 on Biomass Issues
 - ❖ now that it is there, we will certainly use it extensively
 - ❖ and see it as a sort of "bible"
- Intention is to request operators to change (incl. getting approval) where necessary MP by 31 December 2022 (no changes to MMP required)
- No specific legislation planned, as FL legislation refers to MR Regulation 2018/2066

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Implementation of RED II under ETS in the Flemish Region

Impact of RED II

- Impact is expected to be very small (certainly in numbers of installations involved) in the Flemish region, due to:
 - ❖ small numbers of (mixed) biomass used at this moment in ETS
 - ❖ cut-off date “Installation started after 2020?”
 - ⇒ in that case no need to assess meeting GHG savings criteria for gaseous and solid biomass streams
 - ⇒ to be changed with proposed RED3?

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Implementation of RED II under ETS in the Flemish Region

Specific choices/circumstances

- The creation of national schemes to assess REDII-criteria is not planned
- Not in favour letting the operator assess REDII-criteria without using a POS
=> only voluntary schemes or national schemes that are approved by the COM are accepted
- Compliance with REDII criteria can be proven by:
 - POS generated by the consuming installation (consuming installation = economic operator)
 - POS generated by the biomass supplier (supplier = economic operator)

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Implementation of RED II under ETS in the Flemish Region

Specific choices/circumstances

- There might be a different treatment of biomass under ETS and biomass for FL subsidy schemes (more strict), but as long the differences are clear, that is not perceived as problematic
- No national database for biogas, hence specific guidance note (elaborated in 2nd half of 2021) will normally be extended for 2022 (and 2023?) emissions: [Practical aspects treatment of green gas in ETS in Flanders](#) (EN courtesy transl.), meaning:
 - 1) purchasing records of biogas
 - 2) biogas injected meets RED II sustainability and GHG savings criteria (only for 2023 emissions)
 - 3) cancellation of Green Gas GO (only in MS where there is an issuing body for GO Green Gas)

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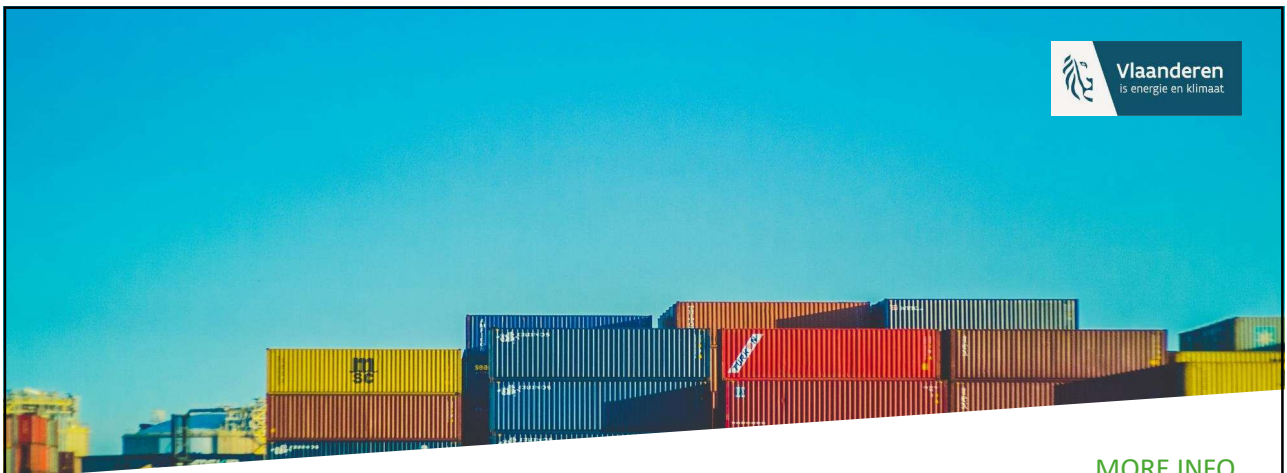
Implementation of RED II under ETS in the Flemish Region

Practical issues with respect to changes to MP

- Point 8 of MRR Annex I, section 1, requires that the operator has in its monitoring plan “a description of the procedure used to assess if biomass source streams comply with Article 38(5)”. CA will assess this when they approve the monitoring plan of installations or aircraft operators.
- Classification of biomass streams (solid/gaseous/liquid) has (a lot of) impact and might create discussions (f.e. sewage sludge). Will need to be decided in the MP (approval with the MP modification)

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MORE INFO

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Certification systems in practice — Viewpoint of the certification system



Thomas Bock, System Manager, ISCC System GmbH
EU ETS Compliance Forum – Training Event on Biomass No. 1, 20 October 2022

Certification via voluntary certification schemes aims to ensure sustainability and GHG emissions reductions along global supply chains

ISCC certification aims to ensure



Sustainability in feedstock production



Traceability of sustainable materials through the supply chain



Verified reduction of GHG emissions



The System Documents build the basis of the certification system. They are based on the RED II and additional rules and guidance by the Commission

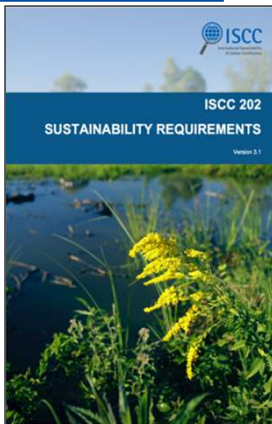
- The System Documents lay down all relevant **certification requirements and processes** for Certification Bodies and System Users (i.e. certified companies) and are structured into different topics
- All System Documents are **publicly available** on the ISCC website



Auditors verify compliance with the standard's requirements via so-called **audit procedures**. These are based on the System Documents

Economic operators generally use the audit procedures, too – for audit preparation

Example for Doc 202



00.06. First Gathering Point and Central Office (Group certification of Farms/Plantations)		
00.06.01	Indicate the total number of farms/plantations (including smallholders) that have signed the ISCC self-declaration during the 12-month period prior to the date of the certification audit (i.e. ISCC compliant). [A list of all farms/plantations including address data and, if possible, geo coordinates must be provided to ISCC.]	
00.06.02	Specify the type of ISCC compliant agricultural producer(s) supplying sustainable biomass.	<input type="checkbox"/> Smallholders <input type="checkbox"/> Individual Farms <input type="checkbox"/> Plantations
00.06.03	Indicate the total number of ISCC compliant smallholders.	
00.06.04	Indicate the total number of ISCC compliant individual farms.	
00.06.05	Indicate the total number of ISCC compliant plantations.	
00.06.06	What is the risk level with respect to potential violations of the ISCC requirements for the sustainable production of biomass (in particular the risk of violations against ISCC Principle 1)?	<input type="checkbox"/> Regular (risk level 1.0) <input type="checkbox"/> Medium (risk level 1.5) <input type="checkbox"/> High (risk level 2.0)
00.06.07	Please indicate how the ISCC criteria to determine the risk-level of the farm/plantation have been applied, with regard to the (non-exhaustive) list of general risks and indicators for farms and plantations as referred to in ISCC Document 204 "Risk Management" for each of the respective ISCC principles 1-6.	
00.06.08	How many smallholders have been audited based on a sample?	
00.06.09	How many individual farms have been audited based on a sample?	
00.06.10	How many plantations have been audited based on a sample?	
00.06.11	Are the supplying farms/plantations covered by European Cross Compliance?	<input type="checkbox"/> yes <input type="checkbox"/> no
00.06.12	In case land use change (LUC) after 1st January 2008 was detected for any farms/plantation (including smallholders) that have signed the ISCC self-declaration during the 12-month period prior to the date of the certification audit: Has the auditor completed a separate ISCC Template for a LUC Statement and Biodiversity Assessment (available on the ISCC website) for each applicable farm/plantation (including smallholders)? (If "yes" all LUC statements must be provided to ISCC together with the certification documents)	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> No LUC was detected





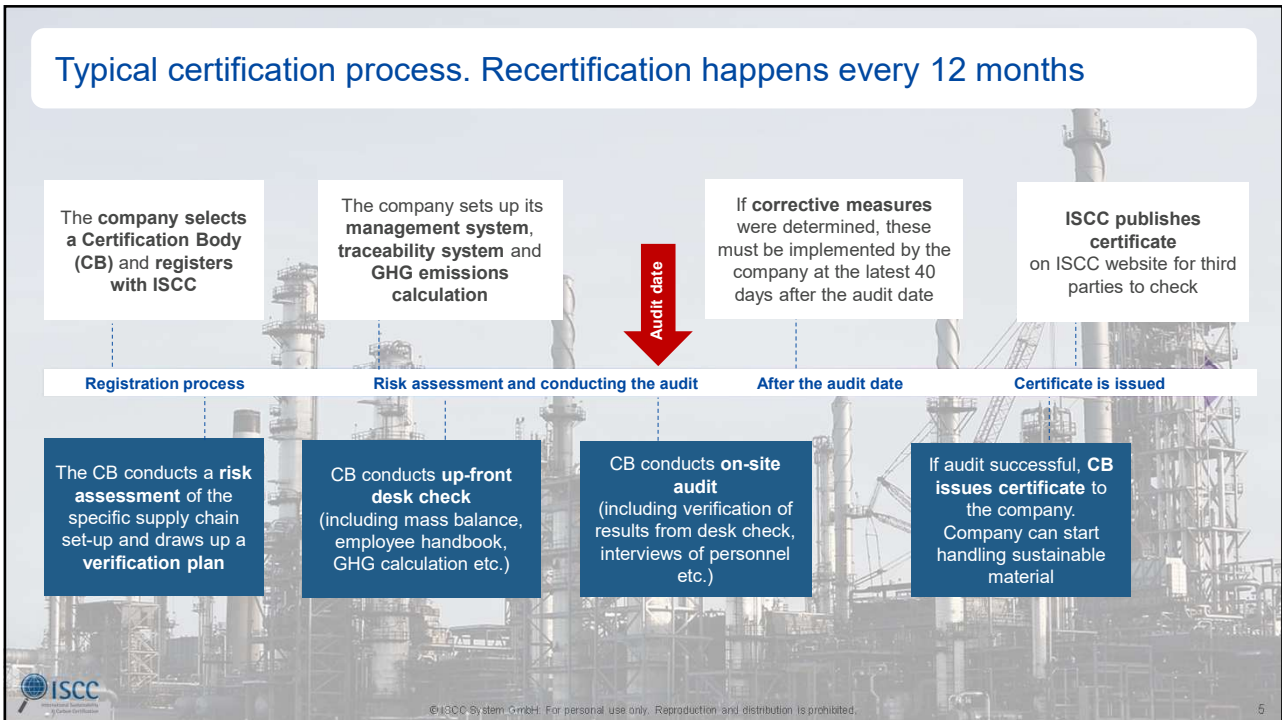
**ISCC EU 103
REQUIREMENTS FOR CERTIFICATION
BODIES AND AUDITORS**


Requirements for certification bodies and auditors to conduct ISCC audits

- **Requirements for certification bodies**
 - Accreditation (ISO 17065 and, if applicable, ISO 14065) as well as recognition by national public authority
 - Audits carried out according to ISO 19011
 - Deep integration of ISCC standard into certification body's processes (e.g. quality management, ensuring competence of auditors, etc.)
 - Successful completion of a rigorous application process (under ISCC)
 - Regular reporting to ISCC on auditing activities against ISCC standards

- **Requirements for auditors**
 - Technical knowledge and good understanding of the audited activities of the operator
 - Sufficient audit experience
 - Particularly stringent requirements for auditors conducting audits in "higher risk supply chains" (e.g. waste and residue-based supply chains)
 - Personal and professional behaviour in line with ISO 19011
 - Successful participation in comprehensive ISCC Training Program
 - Etc.

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Document Checklist Processing Units (e.g. Oil Mill, Refinery, Ethanol Plant, Biodiesel Plant, etc.)

Company name: _____ Operator name: _____
 Address: _____ Date and Signature: _____

No.	Required documents, Information	Name of the document / Findings	Expiry date
1.	ISCC registration number		
2.	Latest and signed ISCC terms of use Check: http://www.iscc-systems.org		
3.	Operating license (permit)		
4.	Silo/tank layout plan for incoming material		
5.	Silo/tank capacities for incoming material		
6.	List of all suppliers delivering sustainable raw material (name and address)		
7.	Sustainability declarations (delivery notes according to ISCC 2023) for every batch of incoming sustainable material		
8.	Weighbridge tickets for every batch of incoming sustainable material		
9.	Periodical reporting of incoming sustainable material per supplier (yearly, monthly, etc.)		
10.	Contracts for all suppliers of sustainable material		
11.	Inventory reporting of sustainable and non-sustainable incoming material (beginning and end of period)		
12.	GHG calculation and list of GHG data e.g. emission factors, lower heating values and their source (only if individual GHG calculation is applied)		
13.	Description of the internal production process		
14.	Production reports including conversion factors/yields, allocation factors, relevant co-products and waste and residues (yearly, monthly, etc.)		
15.	Silo/tank layout plan for outgoing material		
16.	Silo/tank capacities for outgoing material		
17.	List of all recipients of sustainable material (name and address)		
18.	Sustainability Declarations or Proof of Sustainability (in case the unit acts as final producer) for every batch of sustainable material dispatched		
19.	Weighbridge tickets, bill of lading or equivalent qualifying documents for every batch of sustainable material dispatched		
20.	Periodical reporting of dispatched sustainable material per customer (yearly, monthly, etc.)		
21.	Contracts for all recipients receiving sustainable material		
22.	Inventory reporting of sustainable and non-sustainable outgoing material (beginning and end of period)		
23.	Mass balance calculation		
24.	Organisation chart		
25.	Quality management system with respect to ISCC requirements		
26.	Training planning and reporting with respect to ISCC requirements		
27.	Results from internal risk assessment		
28.	Internal audit results		
29.	Contracts with subcontractors (if relevant)		

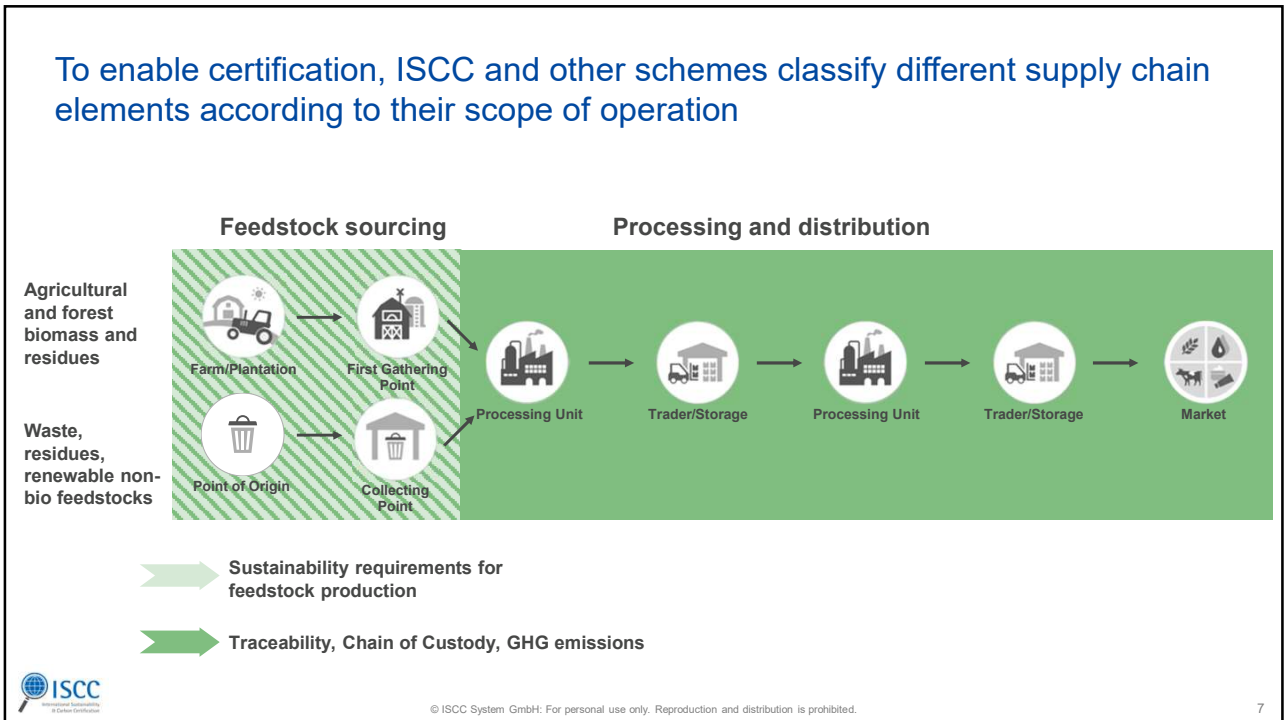
ISCC provides checklists for all operators to help them prepare for certification

Which kind of documentation do operators need to provide for certification?

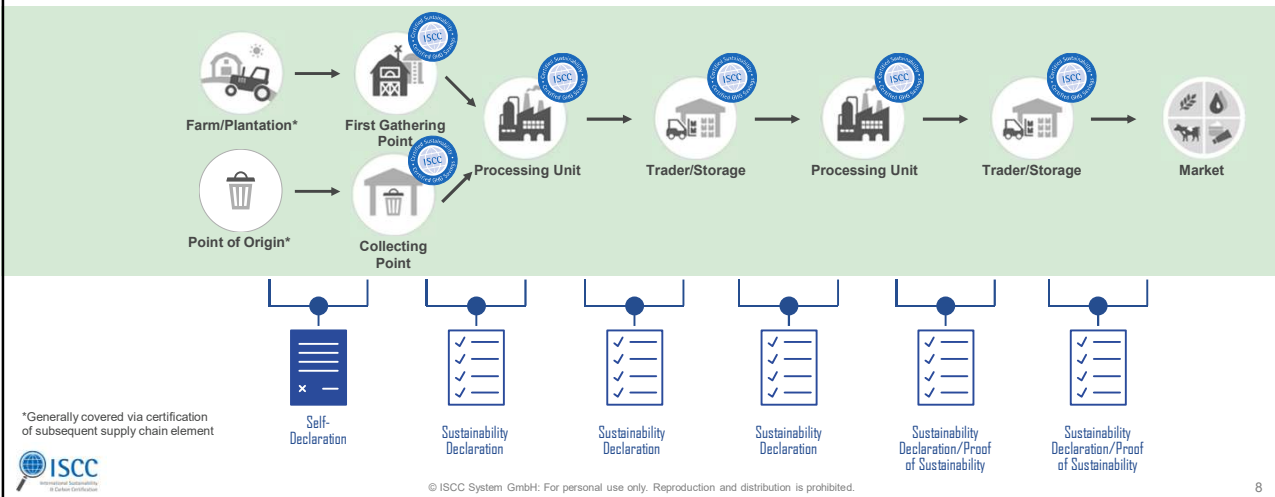
- **Depends on type of operation in question** (Farm? Trading unit? Waste collecting point? Processing unit?)
- **The main aspects audited** relate to the operator's
 - a) management system
 - b) traceability system / mass balance
 - c) GHG calculation
- **A host of different data and documentation needs to be provided by the operator** to substantiate a) – c), including
 - Description of site layouts, tank layouts, internal production process
 - List of all suppliers / recipients of sustainable material
 - Incoming and outgoing sustainability declarations
 - Delivery notes, weighbridge tickets
 - Contracts with (sub)contractors
 - Production reports (yields, co-products, wastes, emission factors)
 - Results of internal risk assessment & internal audits

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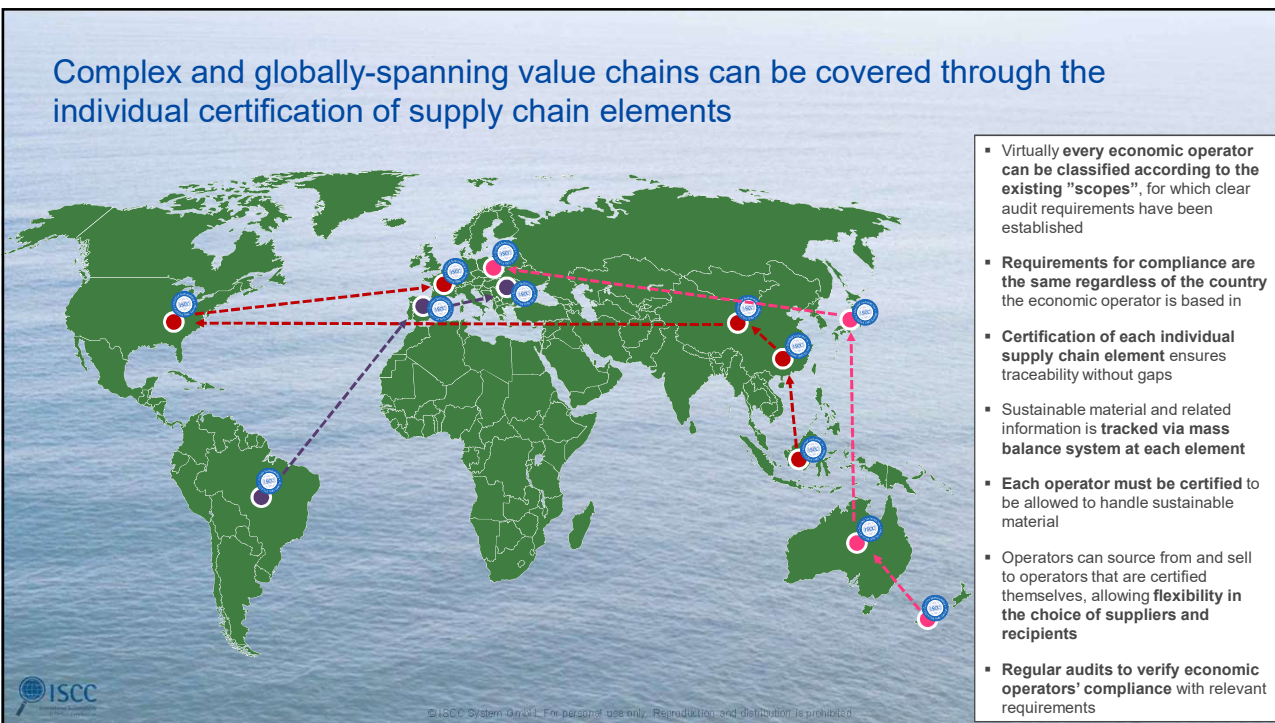
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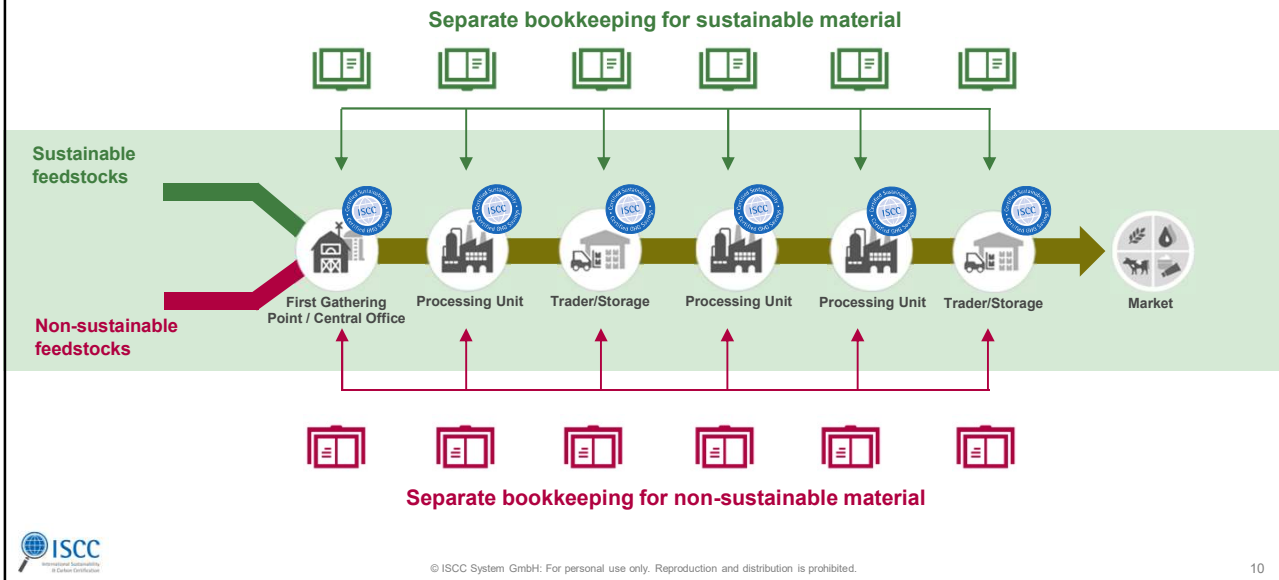
Every supply chain element is certified. Information on sustainable material is forwarded and traced through supply chains via Sustainability Declarations



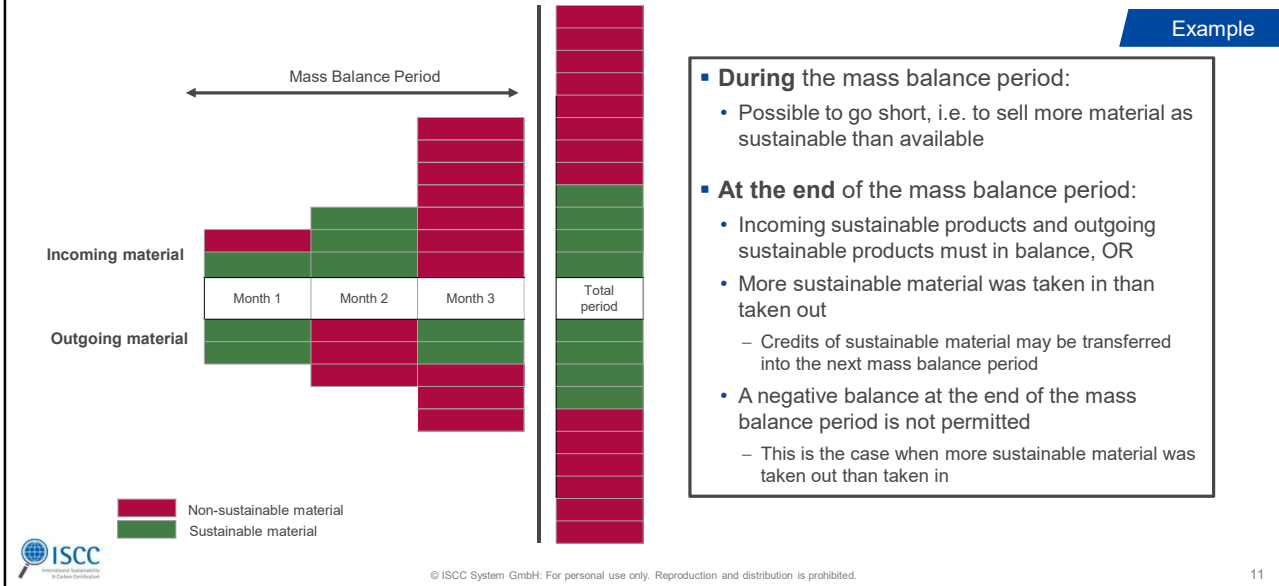
Complex and globally-spanning value chains can be covered through the individual certification of supply chain elements



The mass balance approach: Sustainable and non-sustainable material can be physically mixed but must be kept separated in the bookkeeping

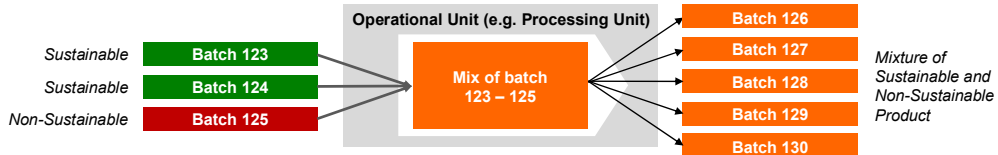


A mass balance ensures that volumes of outgoing sustainable material do not exceed volumes of incoming sustainable material



Example of a simplified mass balance calculation

Physical



Simplified example

Bookkeeping

Input		
Batch	Kind	Amount (t)
123	Sustainable	500
124	Sustainable	1500
125	Non-Sustainable	1000
Total		3000

Company Internal Process		
Batch	Kind	Amount (t)
123+124	Sustainable	2000
125	Non-sustainable	1000
Total		3000

Output		
Batch	Kind	Amount (t)
126	Sustainable	200
127	Sustainable	800
128	Sustainable	1000
129	Non-Sustainable	500
130	Non-Sustainable	500
Total		3000

Assumed conversion factor CF = 1



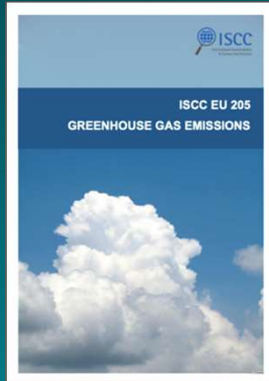
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Based on the RED II, ISCC provides the methodology and rules for calculating and verifying GHG emissions reductions

RED II lays down basic GHG methodology

ISCC integrates RED II provisions in its system and further details requirements

Economic operators calculate GHG values of their operation according to ISCC document. Subject to regular audits.



Checked and verified by the certification body before GHG value can be forwarded in the supply chain





RED II “certificate” vs “proof of sustainability”

Certificate



Proof of Sustainability



RED II “Certificate” vs. “Proof of Sustainability”

A *certificate*³⁷ is what certifies that an economic operator complies with the rules of the certification scheme. The *Proof of Sustainability*³⁸ is issued by the economic operator for confirming that a certain consignment of biomass material, biofuel, biogas or biomass fuel fulfils the sustainability or GHG savings criteria.

Source: MRR GD No.3, 3rd draft

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The Proof of Sustainability (PoS): Essential for stating that all relevant RED II criteria have been verified along the supply chain

1. General Information	
Type of Product:	Biodiesel
Type of Raw Material:	Rapeseed / canola
Additional Information (voluntary):	
Country of Origin (of the raw material):	France
Quantity:	100,000 mt <input type="checkbox"/> m ³ <input checked="" type="checkbox"/> metric tons
Energy content (MJ):	3,700,000 MJ
EU RED Compliant material ³⁷ :	<input checked="" type="checkbox"/> Yes
ISCC Compliant material (voluntary):	<input checked="" type="checkbox"/> Yes
Chain of custody option (voluntary):	Mass balance
2. Sustainability & Environmental Criteria	
The raw material complies with the relevant sustainability criteria according to Art. 29 (2) - (7) RED II ³⁸ :	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
The agricultural biomass was cultivated as intermediate crop (if applicable):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The agricultural biomass additionally fulfils the measures for low & LC risk thresholds (if applicable):	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
The raw material meets the definition of waste or residue according to the RED II ³⁸ :	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
3. Greenhouse Gas (GHG) emission information	
Total default value according to RED II applied:	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
E = Total GHG emissions from supply and use of the fuel (gCO ₂ eq/MJ)	44.7 gCO ₂ eq/MJ
GHG emission saving ³⁹	
52.4% Biofuels for transport	75.6% Biomass fuels for the production of electricity
75.6% Biogas for electricity	44.1% Biomass fuels for the production of useful heat, as well as for the production of energy for heating and/or cooling
44.1% Biogas for the production of useful heat, as well as for the production of energy for heating and/or cooling	64.5% Biomass fuels for the production of useful heat, in which a direct physical substitution of coal can be demonstrated
Date when the total biogas, bioethanol or biomass producer started operation: 03.10.12	

- Chapter 1 of the PoS gives general information, including the type of product and type of raw material / feedstock
- The PoS will have a statement that indicates “EU RED compliant material”. This is ticked with “Yes” if this batch of product can be considered compliant



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The Proof of Sustainability (PoS): Essential for stating that all relevant RED II criteria have been verified along the supply chain

2. Scope of certification of raw material

The raw material complies with the relevant sustainability criteria according to Art. 29 (2) - (7) RED II? Yes No

The agricultural biomass was cultivated as intermediate crop (if applicable) Yes No

The agricultural biomass additionally fulfills the measures for low ILUC risk feedstocks (if applicable) Yes No

The raw material meets the definition of waste or residue according to the RED II? Yes No

3. Greenhouse Gas (GHG) emission information

Total default value according to RED II applied Yes No

E = Total GHG emissions from supply and use of the fuel (gCO₂eq/MJ)

GHG emission saving*

52.4%	Biofuels for transport	75.6%	Biomass fuels for the production of electricity
75.6%	Biofuels for electricity	44.1%	Biomass fuels for the production of useful heat, as well as for the production of energy for heating and/or cooling
44.1%	Biofuels for the production of useful heat, as well as for the production of energy for heating and/or cooling	64.0%	Biomass fuels for the production of useful heat, in which a direct physical substitution of coal can be demonstrated

Date when the final biofuel, bioliqoid or biomass producer started operation?

- Chapter 2 of the PoS includes a series of statements on how the raw material / feedstock for the product can be considered
- For agricultural and forestry biomass including residues from agricultural, aquaculture, fisheries and forestry: The statement *“The raw material complies with the relevant sustainability criteria according to Art. 29 (2) – (7) RED II”* is ticked if raw material compliant with RED II requirements
- For wastes and residues as well as products produced from wastes and residues: The statement *“The raw material meets the definition of waste or residue according to the RED II”* is ticked if raw material compliant with RED II requirements
- Please note: Both statements are ticked with “Yes” in case of residues from agricultural, aquaculture, fisheries and forestry



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The Proof of Sustainability (PoS): Essential for stating that all relevant RED II criteria have been verified along the supply chain

3. Greenhouse Gas (GHG) emission information

Total default value according to RED II applied Yes No

E = Total GHG emissions from supply and use of the fuel (gCO₂eq/MJ)

GHG emission saving*


52.4%	Biofuels for transport	75.6%	Biomass fuels for the production of electricity
75.6%	Biofuels for electricity	44.1%	Biomass fuels for the production of useful heat, as well as for the production of energy for heating and/or cooling
44.1%	Biofuels for the production of useful heat, as well as for the production of energy for heating and/or cooling	64.0%	Biomass fuels for the production of useful heat, in which a direct physical substitution of coal can be demonstrated

Date when the final biofuel, bioliqoid or biomass producer started operation?

- Chapter 3 of the PoS gives information on Greenhouse gas (GHG) emissions
- If ISCC PoS template is used by the economic operator, the GHG emissions savings will be indicated on the PoS, depending on fuel type (biofuel, bioliqoid, biomass fuel) and end use (transport, electricity, etc.)
- As knowledge of start date of operation is necessary to determine the GHG minimum saving threshold, this information is included on the PoS as well



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Depending on the type of biomass, different criteria are audited and must be complied with

**ISCC EU 202-5
WASTE AND RESIDUES**

- **Under ISCC, the general auditing and certification principles apply equally** to all streams of biomass, as well as to all fuel types (biofuels, bioliquids, biomass fuels)
- **Auditors** are required to use process depicted on the left to **determine the status and classification of a material** at beginning of the supply chain
- Depending on result, the **material will have to comply with the applicable criteria** during the audit:
 - **Agricultural & forestry (co)products** as well as **residues from agriculture, aquaculture, fisheries or forestry** must comply with a) the “land-related” RED II sustainability requirements as per Art. 29 (2) – (5), and b) the GHG saving criteria
 - **Waste and processing residues** do *not* need to comply with the “land-related” RED II sustainability requirements, but *do* need to comply with the GHG saving criteria
- If **material** (e.g. a waste) is **generated directly in an installation**, the operator will have to prove plausibility of amounts generated




Process to determine if a material is a waste or residue (to be done by the auditor)

Source: ISCC document 202-5 “Waste and residues”

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Thank you for your attention!

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Email: bock@iscc-system.org

Practical Experiences with Certification of Sustainable Biomass in Germany

2022 EU ETS COMPLIANCE FORUM
Werner Betzenbichler

1

Topics

- ✓ Brief introduction
- ✓ Certification Schemes used by German operators
- ✓ Key Market drivers for SURE certification
- ✓ Specialties of “solid biomass market”
- ✓ Certification approach
- ✓ Open issues wrt to use under EU ETS

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Brief introduction of verico SCE



- ✓ verico SCE (**S**ocietas **C**ooperative **E**uropaea)
a European cooperative based in Langenbach, Bavaria
- ✓ Our members are small enterprises and freelancers;
recently 34 members (end of 2021) from 6 EU countries + 5 non-EU countries
- ✓ Many members worked in high level management position in large validation and verification companies
- ✓ All with a background in
 - MRV (monitoring, reporting, verification) of GHG emissions
 - MRV of energy generation (renewable and conventional)
 - Energy management systems
 - Capacity building activities
- ✓ verico SCE provides accredited services and a platform for multi-sectoral services

www.verico.eu

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Brief introduction of verico SCE



- ✓ globally the only accredited cooperative
 - ✓ Energy management system (ISO 50001)
 - ✓ Sustainable biomass certification (SURE)
 - ✓ Greenhouse gas emissions (ISO 14065)
 - ✓ Corporate inventories
(EU ETS, carbon footprint, CDP, F-Gas, product carbon footprint, CBAM)
 - ✓ Emission reduction projects
(voluntary market, VCS/VERRA, GCC, UER)
- ✓ Studies, trainings and support for scheme regulators like development banks, ministries and authorities as well as accreditation bodies

www.verico.eu

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4

Certification Scheme(s)

- ✓ Driven by RE subsidies / tariffs the certification of biofuels and biogas is established since long in Germany
 - ✓ ISCC – International Sustainability and Carbon Certification
 - ✓ REDcert
- Since mid of 2021 (with focus on RED-II)
 - ✓ Sustainable Resources (SURE) Verification Scheme
- ✓ All require two levels of accreditation, one by the system owner, one by the BLE (Federal Office for Agriculture and Food) following ISO17065

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Key Market drivers for SURE certification

Gaseous Biofuels

- ✓ By RE subsidies / tariffs of CHP plants powered by biogas; (Biomassestrom-Nachhaltigkeitsverordnung – BioSt-NachV)
 - ✓ First aspect – agriculture activities, including LU
 - ✓ Second aspect – biogas produced by digestion, fermentation or gasification of biomass
 - ✓ Third aspect – conversion to power (**or heat**)
- ✓ Generation capacity usually well below 20 MW → low relevance at EU ETS installations (some auxiliary boilers / engines)

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Key Market drivers for SURE certification (2)

Solid Biomass Fuels

- ✓ Relevant installations with installed capacity > 20 MW
 - ✓ Originally some incentive by the same regulation on RE, however, the high spot market price for electricity completely erased that incentive
 - ✓ Inclusion of aspect in EU ETS installations, most of them CHP plants powered by wooden biomass and/or waste with biomass content
 - ✓ More appropriate regulations when referring to the certification of solid biomass is currently mainly applied for liquid biofuels (Biokraftstoff-Nachhaltigkeitsverordnung – Biokraft-NachV)
- ✓ **Key difference: GHG emissions saving targets also for existing/old installations**

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Key Market drivers for SURE certification (3)

Liquid Biofuels

- ✓ Not included so far in SURE certification system
- ✓ No (expected) consumption of liquid biofuels under EU ETS for stationary installations (other than expected for aviation)
- ✓ However, there is demand for some operators (especially waste collectors) to get certification of both (all) types at the same time

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Specialties of “solid biomass market”

Solid Biomass Fuels

- ✓ Creation of market demand in a top-down principle (consumers urge suppliers to deliver certified ware)
- ✓ Consumers (CHP-plant) are frequently also generators of biomass waste
- ✓ Forest biomass – no problematic cases in certification, however risk of large groups covering many landowners to be included in audit schedule (sampling approach)
- ✓ Collection and “trading” of waste – many processing / collection sites with consumers inside and outside of ETS → demand only for a share of available biomass

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Certification approach (1)

- ✓ Closure of certification contract with fixing of scope
- ✓ First certification, Focused on (management) system and competences (mass balance in most cases almost empty)
- ✓ Auditing (usually including site inspections) also by means of matrix sampling e.g. for group managers
- ✓ Filling of checklists (designed by SURE) for reporting
- ✓ Requirement to close material findings within a timeline
- ✓ Issuance of a certificate, entitling the operator to “produce” certified biomass
- ✓ Recording of biomass / energy produced in register(s) – certification scheme and national authority

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Certification approach (2)

- ✓ Upload of certificate and checklists/report(s) to SURE and BLE
- ✓ Surveillance audit after 6 months, with focus on verification of mass balance
- ✓ Registration of “produced” biomass/energy by certified operator / company
- ✓ Annual re-certification, including ex-post verification of mass balance (in most cases for biomass which has been consumed already), thus enabling consistency checks with entries in register
- ✓ As last link in the (supply) chain, the EU ETS installation has highest incentive (and risks) regarding data quality and data consistency

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Certification approach (3)

Elements of checklists (reports)

Criterion Audit / Criterion Inspection	No.	Criterion / requirement	Conform					Comments / description of the inspected documents / records / certificates
			Conform	Minor	Major	Critical / KO	Not applicable ()	
1		General principles and requirements of the SURE-EU Scheme						
1.1		Organisation and administration of a group						<input type="checkbox"/> N/A
A	1.1.1	Are the general conditions for the organisation, management and composition of groups in accordance with the SURE-EU system fulfilled?						
A	1.1.2	Is there a central group administrative office responsible for the organisation and internal monitoring of the group members?						
A	1.1.3	Is there a current and complete site directory?						

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Certification approach (4)

Elements of checklists (reports)

4. Information on type and quantity of sustainable biomass before the last interface ■ N/A				
Quantity of outgoing sustainable biomass in the last two half-year periods		Type	Quantity	Unit
[t _{DM} for biogas/biomethane in m ³] <i>Expand list if necessary!</i>	1			
	2			
	3			
	4			
	5			

Important: All fields are mandatory!

© SUSTAINABLE RESOURCES Verification Scheme GmbH
Checklist: Producers waste and residues / CL-WaR-1.3 / Date: 15.06.2021

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Example of a certificate

Certificate

Certificate ID – SURE-EU/DE-016/201760722

By means of an audit on 01.06.2022, documented in a report

verico_{SCE}
SURE-EU-Cert-DE-016
Hagenaustr. 7, 85411 Langenbach, Germany

confirms to

the compliance with the requirements of the certification system

for demonstrating compliance with the sustainability criteria under Directive (EU) 2018/2001 of the European Parliament and the Council based on SURE Scheme documentation valid at time of the audit.

This certificate serves as proof of compliance with the requirements of Directive (EU) 2018/2001 for the following scope(s):

1301 – Group manager of producers of waste solid residues / 2301 – Collector of waste and residues / 3301 – Processing plant for waste and residues / 4001 – Supplier before the last interface

Date of certification decision: 08.07.2022
This certificate is valid* from: 08.07.2022 to 07.07.2023

Langenbach, 08.07.2022
Place and Date

Signature of certification body

*The certificate holder is responsible for the accuracy of this certificate.
*Due to the ability of the certificate including the information given on the website of SUSTAINABLE RESOURCES Verification Scheme GmbH, the holder is not responsible for the withdrawal or suspension of the issued certificate. Once this certificate is property of the verification body, its original copies must be returned on request.

www.verico.eu

be RESPONSIBLE | be SUSTAINABLE | be SURE

14

Certification approach (5)

Entry of “produced” certified biomass

Responsible person in audited operation

Salutation* First name* Last name* Sample size producer*

Audit report number* Certification body* Auditor*

Executed audit

Please note the reporting period for the entry of a maximum of 42 days retrospectively.

Audit date from until

Amount of recorded biomass

Biomass Quantity Unit

Audit result*

Upload audit file*

Upload additional audit files

Agricultural biomass (without agri, waste and residues) – AGRI
Agricultural waste and residues – AGRI WaR
Forest biomass (without forest waste and residues) – FOREST
Forest waste and residues – FOREST WaR
Waste and Residues (not agricultural or forest) WaR

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Open issues wrt to use under EU ETS (1)

- ✓ Inclusion of industrial waste including biomass in certification scheme
- ✓ EU-wide transportation of specific types of waste (e.g. railway sleepers) using a unified / standardized waste notification system but missing coverage by certification schemes
- ✓ Missing focus on GHG emissions savings when conversion plant is not a new one
- ✓ Need for certification / acquisition of sustainable biomass before starting with new monitoring plan (e.g. to ensure that storage volume is already certified)

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Open issues wrt to use under EU ETS (2)

- ✓ High level of uncertainty (NCV, quantity at standard conditions) for solid biomass
- ✓ Missing completion of “infrastructure” (national registries)
- ✓ apparent lack of coordination between the authorities involved & missing guidance on MRV from (all) involved regulators
- ✓ Inconsistent usage of mass balances (wet/dry, with and without contaminations)

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Any Questions?

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EU ETS Monitoring and Reporting – CF Training event

Training Event on Biomass No. 2

Hubert.fallmann@umweltbundesamt.at

27 October 2022

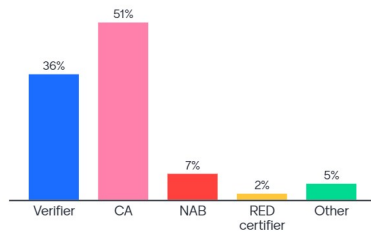
Set-up of the training

- EU ETS Monitoring & reporting aspects of biomass – relation to RED II requirements
 - General topics were subject of first training (last week)
 - Today focusses on specific topics – biogas, aviation, verification
- Target audience:
 - Competent authorities (CAs) and verification bodies
 - As the topic is relatively new, all are welcome, from newcomers to experienced staff
- Objectives
 - To enable you to check monitoring plans (MPs) and annual emission reports (AERs) of operators and aircraft operators using biomass

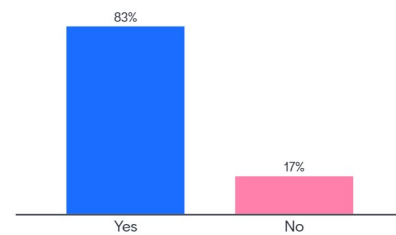
Mentimeter

- What is your role in the EU ETS?
- Have you participated in the previous training day?

What is your role in the EU ETS?



Did you take part in the training last week?



3



Agenda 27th October 2022

#	Time	Session
1.	10:00 – 10:15	Opening, welcome and introduction (DG CLIMA)
2.	10:15 – 10:30	Biogas in grids - Requirements
	10:30 – 11:00	Example of a biogas registry and ERGaR
	11:00 – 11:15	Q&A
3.	11:15 – 11:25	Coffee break
4.	11:25 – 11:40	Other Biomass issues: Determining the biomass fraction, CEMS, etc.
	11:40 – 11:50	Q & A
5.	11:50 – 12:15	Biofuels for Aviation: Requirements
	12:15 – 12:30	Q & A
6.	12:30 – 14:00	Lunch break
7.	14:00 – 14:25	The role of the verifier in assessing biomass requirements - main requirements
	14:25 – 14:40	Q & A
8.	14:40 – 15:00	Verifier's checks on compliance with RED II criteria
	15:00 – 15:15	Q & A
9.	15:15 – 15:25	Coffee break
10.	15:25 – 15:40	Verifier's checks on compliance with RED II criteria
	15:40 – 15:50	Q & A
11.	15:50 – 16:00	Wrap-up and close of the meeting (DG CLIMA)

4



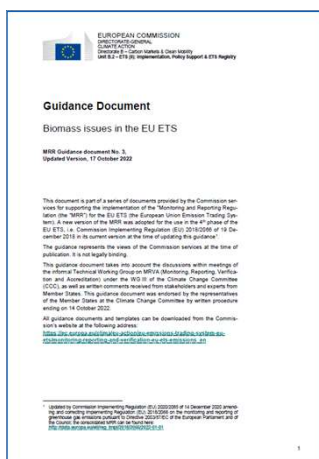
MRR requirements for biogas

Including requirements for biogas in natural gas grids

5



Guidance document 3



Guidance document 3 – “Biomass issues in the EU ETS” has been published:

https://climate.ec.europa.eu/system/files/2022-10/gd3_biomass_issues_en.pdf

DG CLIMA’s MRVA website:

https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/monitoring-reporting-and-verification-eu-ets-emissions_en

6



MRR and RED II

- MRR 2018 (with 2020 and 2022 amendments) contains requirement to apply RED II criteria for biomass/biofuels
- MRR (*Commission Implementing Regulation (EU) 2018/2066 of 19 December 2018 on the monitoring and reporting of greenhouse gas emissions pursuant to Directive 2003/87/EC of the European Parliament and of the Council and amending Commission Regulation (EU) No 601/2012*): Consolidated version: [EUR-Lex - 02018R2066-20220828 - EN - EUR-Lex](#)
- RED II (*Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources*): [EUR-Lex - 32018L2001 - EN - EUR-Lex](#)

7



Monitoring Reporting Regulation

- Article 38(5) “Biomass source streams”
- Biomass emissions from combustion can be zero rated if:
 - **Sustainability criteria** are fulfilled → Article 29 (2-7) of Directive (EU) 2018/2001 (RED II)
 - AND
 - **GHG saving criteria** are fulfilled → Article 29 (10) of Directive (EU) 2018/2001 (RED II)
- Biofuels produced from waste and residues are required to fulfil only GHG saving criteria, not the sustainability criteria
 - However residues from agricultural, aquaculture, fisheries and forestry have to fulfil both, sustainability and GHG saving criteria

NEW:
Art.
38(5)
MRR

8



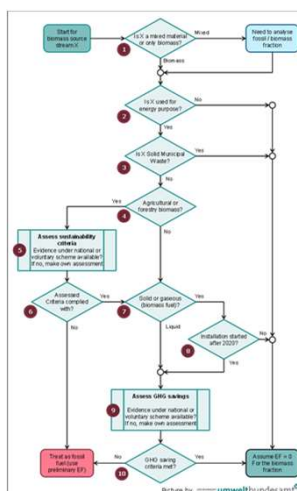
Recap from last week's training (1)

- Definitions: Article 3 of the MRR copies the biomass-related definitions from the RED II, in particular :
 - 'biogas' means gaseous fuels produced from biomass
- Which parts of RED II apply?
 - Art. 29: Sustainability and GHG savings criteria are relevant not only for liquid, but also for solid and gaseous biomass
 - Art. 30: Verification of compliance with the sustainability and greenhouse gas emissions saving criteria
 - Art 31: Calculation of the greenhouse gas impact of biofuels, bioliquids and biomass fuels
 - Art. 28(2): Other provisions on renewable energy in the transport sector: Union database: tracing of liquid and gaseous transport fuels.

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Recap from last week's training (2)



- For which biomass materials do sustainability and/or GHG savings criteria apply?
- Which sustainability criteria apply?
- How are GHG savings calculated?
- In which Articles of the MRR are the criteria relevant?
- Timeline – MS may delay the application of RED II criteria until 1 January 2023
- How to demonstrate compliance with RED II criteria

Some of these topics will be presented today in the aviation-specific presentation

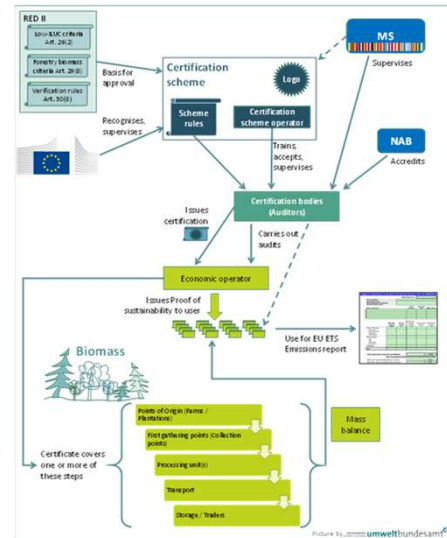
10



Recap from last week's training (3)

- How do voluntary schemes work?
- Where to find information on schemes recognised by the Commission:
 - https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en
- Certificate
 - Certifies that an economic operator complies with the rules of the certification scheme
- Proof of Sustainability (PoS):
 - Issued by the economic operator for confirming that a certain consignment of biomass material, biofuel, biogas or biomass fuel fulfils the sustainability and GHG savings criteria

EU ETS operators needs the "proof of sustainability" for each of the consignments (batches) of biomass used so that emissions from biomass can be zero-rated in the annual emissions report.



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Biogas in natural gas grids

- Situation:
 - Biogas is fed into a gas grid, where it is mixed with natural gas. It is hard to predict, where the biogas is (physically) consumed
 - EU ETS operators "somewhere" connected to the grid want to claim the biogas for having an emission factor of zero
- Solution by the MRR:
 - Article 39(3) forbids the use of laboratory analyses for determining the biomass fraction of natural gas for preventing double counting
 - Article 39(4) allows an approach to determine the biomass fraction by purchase records

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Biogas in natural gas grids (2)

- Conditions for use of Article 39(4), i.e. the **purchase records approach**:
 - Operator has to provide evidence that there is no double counting of the biomass
 - In particular, no Guarantee of Origin (GoO) must be disclosed (i.e. used) by a third party for the same quantity of biomass
 - Gas consumer (EU ETS operator) and the producer of the biogas are connected to the same gas grid
 - Applicable sustainability & GHG savings criteria must be met
- For demonstrating compliance, the operator may use the data recorded in a database set up by one or more Member States which enables tracing of transfers of biogas (i.e. a “biogas registry”) → **Next presentation**

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Purchase records or certificates?

- Does the biogas registry issue certificates that include information on sustainability, or guarantees of origin, or both?
It must ensure that there is no double counting of biogas
 - Does the biogas registry act like a mass balance system under Article 30(1) of the RED II, or does it issue certificates or GoOs that are traded independently from the physical gas quantities?
- **If the registry fulfils the mass balance requirements, the certificates can be considered equivalent to purchase records.**
However, GoOs are not enough!
- If GoOs are also used in the MS, they must be cancelled either when the certificate is generated in the registry, or – if closely linked to the certificate – immediately when the certificate is used.

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Transfer of biogas across borders

- MS do not necessarily accept biogas transferred from another MS – Operator needs to get information on the MS' approach
- If registries are used, technical compatibility is required – ERGaR! (**next presentation**)
- In the future, the Union database (RED II Art. 28(2)) will fulfil the required tasks (mass balance and tracking of sustainability/GHG savings criteria)
- “Statistical transfer”: How do national inventories take such transferred biomass into account?
No automatic mechanism in place; Bilateral agreements by MS required

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Thank you for your attention

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 Version: 1.0


Biomethane Certificates

"Example of a biogas registry and ERGaR"

EU ETS Compliance Forum
27 October 2022
Andreas Wolf



AGCS
balance group coordinator



BIOMETHAN
AGCS BIOMETHAN REGISTER AUSTRIA

1

NATIONAL

- HEATING SECTOR (labelling)
- RENEWABLE ELECTRICITY (CHP)
- ENERGY EFFICIENCY
- BALANCING ENERGY (power-to-gas)
- RENEWABLE GAS (injection of biomethane gas grid, e.g. to fulfil quotas)
- BIOFUELS (fulfil quotas thanks to sustainability criteria)
- NATIONAL SUBSIDIES (individual schemes, e.g. investment subsidies)

EUROPE

- RENEWABLE ELECTRICITY (CHP)
- HEATING SECTOR (labelling)
- BIOFUELS (fulfil quotas thanks to sustainability criteria)

MARKETING PATHWAYS

Biomethane Certificates

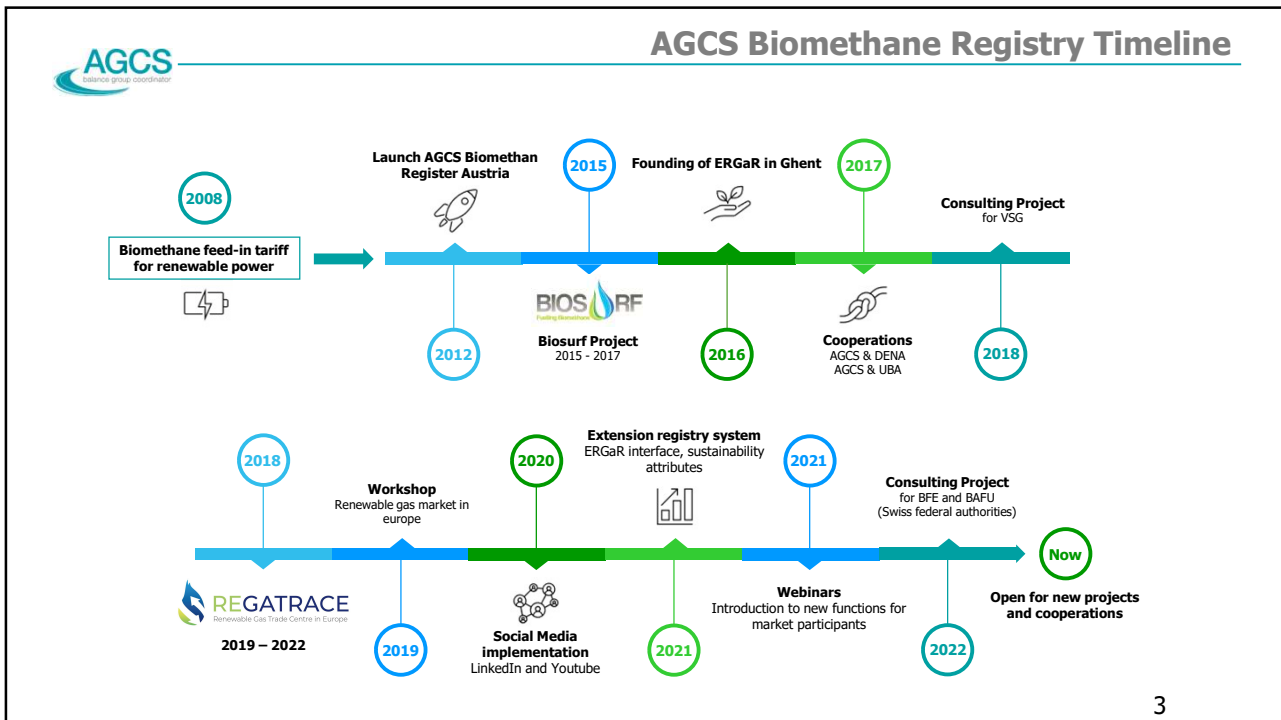
Applications / marketing pathways

Biomethane certificates are the instrument to provide trustworthy and transparent documentation

- For title transfer of the green value of biomethane
- For biomethane to be applied in different marketing pathways on national and European markets

2

2




Biomethane in Austria

- **Key Facts - Registry**
 - All Austrian market areas covered
 - **Monthly creation of biomethane certificates**
 - Quality through network operator data
 - Transfer and split option of certificates
 - Handling of Book and Claim ("B&C") and Mass Balancing methods
 - Creation of cancellation documents for final use
 - **Handling of mass balancing and auditing**
 - 10 Auditors
 - 11 registered Traders
 - Base of our work: Austrian legal acts on gas and renewable energy
- **Cooperations and future applications**
 - Interface with Register for sustainable biofuels (eINA) of Austrian environment agency (UBA)
 - Ownership transfer within Europe via the **ERGaR CoO scheme**

- **Austrian Biomethane market**
 - 15 biomethane plants
 - 12 Biomethane electricity production plants
 - 1 subsidy scheme for power generation via biomethane
 - 136 GWh produced in 2021

Biomethane injection in Austria
(incl. January - August 2022)

Year	Biomethane injections in GWh
2011	46.80
2012	52.94
2013	54.52
2014	87.90
2015	106.22
2016	130.74
2017	148.66
2018	170.98
2019	152.26
2020	137.69
2021	136.41
2022	93.67



Biomethane Certificates

Example Austria: Attributes of biomethane certificates

The attribute list is the centrepiece of the Biomethane Certificate, providing all relevant information and data on the origin, quantity and quality of biomethane (renewable gas product).


- **Level 1 – plant specific information**
 - Information about the production plant
 - The facility at which the biomethane was produced (incl. commissioning)
 - Country, Injection point, plant type, etc.
- **Level 2 – quantitative data (gas-related)**
 - quantity / volume (metering/clearing data)
 - Specific to the issuing registry
- **Level 3 – qualitative data (feedstock-related)**
 - Externally audited data
 - Used/treated substrates incl. details on processing, quality, volume, emission mitigation, etc.
 - Sustainability criteria (REDcert, ISCC, TÜV)
- **Level 4 – transfer information (transfer-related)**
 - does NOT contribute information to the renewable gas product
 - to enable the (semi-)automated transfer IT-processes

Level 1

plant
specific
information

Level 3

Auditing
Reports



qualitative
data
feedstock-
related

Level 2


quantitative
data
gas-related

Level 4

transfer
information

5

5




Application Purpose of Biomethane Certificates

Cooperation on European level

BIOMETHAN

Biomethane
Registry
Austria



physical transfer vs certificate transfer
* incl. mass balancing

Cooperation &
interaction
of different registries

ERGAR
ERGaR Hub
(Control & Transfer)

National
subsidy
schemes

Registry
for GoO
(labelling)

Registry
for biofuels
(RED II)

free
market

CertifHy
Registry for
Hydrogen

Different types of documentation as proof

PoS
Proof of Sustainability

Support certificate

GoO
Guarantees of Origin

PoS
Proof of Sustainability

Biomethane certificate

Hydrogen certificate

Vision of AGCS
one centralised "Decarbonisation Registry"

to cover

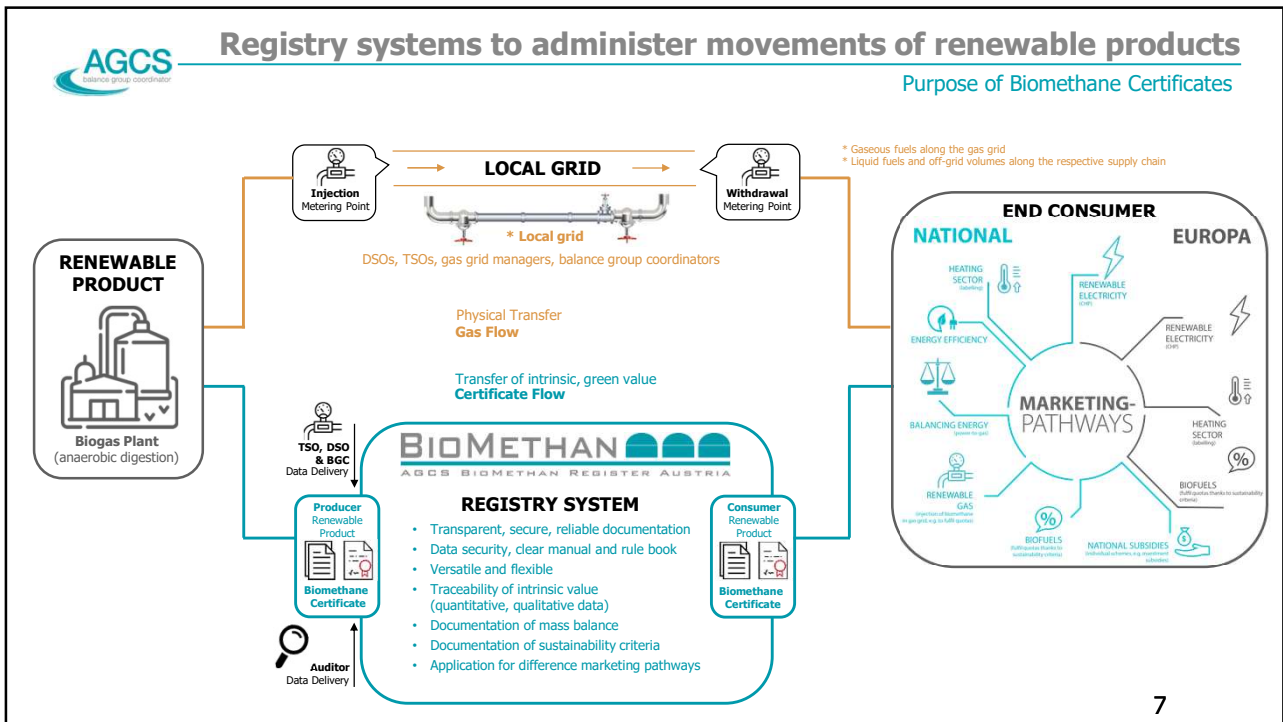
- All types of renewable gases
- All types of marketing pathways
- All types of documentation/proofs with flexible and comprehensive attribute lists

to provide

- Maximum trust and transparency
- Simplicity for market participants

6

6



7

AGCS
balance group coordinator

Sample Cancellation Statement

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Palais Liechtenstein
Altebachstraße 14-16
1090 Wien
Tel: +43 1 907 41 77-0
Fax: +43 1 319 07 01-311
E-Mail: office@agcs.at

AGCS BIOMETHAN REGISTER AUSTRIA

Cancellation Statement of a Biomethane Certificate

PRODUCTION PLANT

Plant Name: TESTFIRMA1
Plant ID in Registry System: 35
Date of Commission: 01.01.2000
Address of Plant: Mülbergasse 1, 1111, Wien
Plant Country of Origin: AT
Plant Type: Biomethane Producer
Proof of Renewable Power Plant (ÖSG 2012): Yes
Plant Category (ÖSG 2012): agricultural substrate
GoD Tech/Codes (G-KerV 2019): C_1005_C_1007_C_1008_C_1011_C_1013
Technology: anaerobic digestion
DSO (Grid): Netzbetreiber Wien
Technical Component: AT869696000000000000000000123456
Metering Point: AT00111222333444
Metering Point ID: 987654321
Production Support: No
Investment Support: No
Production Capacity (kWh): 7.000.000
Max. Injection (kWh): 8
Production Capacity (MWh/h): 1
Gross or Net Energy: Gross

QUANTITATIVE DATA

Energy Medium: Biomethane
Beginning of Injection Period: 01.01.2021
End of Injection Period: 01.02.2021
Available Energy Amount of Certificate (kWh): 1.000
Storage Gas: No
Renewable Gas from Power: No

INFORMATION ON THE CERTIFICATE - Biomethane Certificate of Origin

Issuing Date of Biomethane Certificate: 31.05.2021
Certificate issued by: AGCS Gas Clearing and Settlement AG
Unique, original ID of Biomethane Certificate: BMN-012021-TESTFIRMA1-00395
Unique, current ID of Biomethane Certificate: BMN-012021-TESTFIRMA1-00425

INFORMATION ON THE CERTIFICATE - Cancellation Certificate

Unique ID of Cancellation Certificate: 0000469393
Cancellation Date: 04.01.2022
Issuing Date of Cancellation Certificate: 04.01.2022
End Consumer: Test Company2
Purpose: OAMAG
Owner at Cancellation: Test Account
Date of Audit Report Upload: 01.08.2021
Auditor: Vorname Nachname

AGCS Gas Clearing and Settlement AG
Palais Liechtenstein
Altebachstraße 14-16
1090 Wien
Tel: +43 1 907 41 77-0
Fax: +43 1 319 07 01-311
E-Mail: office@agcs.at

AGCS BIOMETHAN REGISTER AUSTRIA

Title of Audit Report: Gutachten.pdf
Description / Remark of Auditor:
Grid Injection: Yes
Tracking Claim: book and claim

QUALITATIVE DATA - Information on biomass and substrates

Biomass Coding Scheme:
Biomass Code:
Biomass Description:
Biomass Classification Description:
Original Biomass Description:

QUALITATIVE DATA - Information on Sustainability

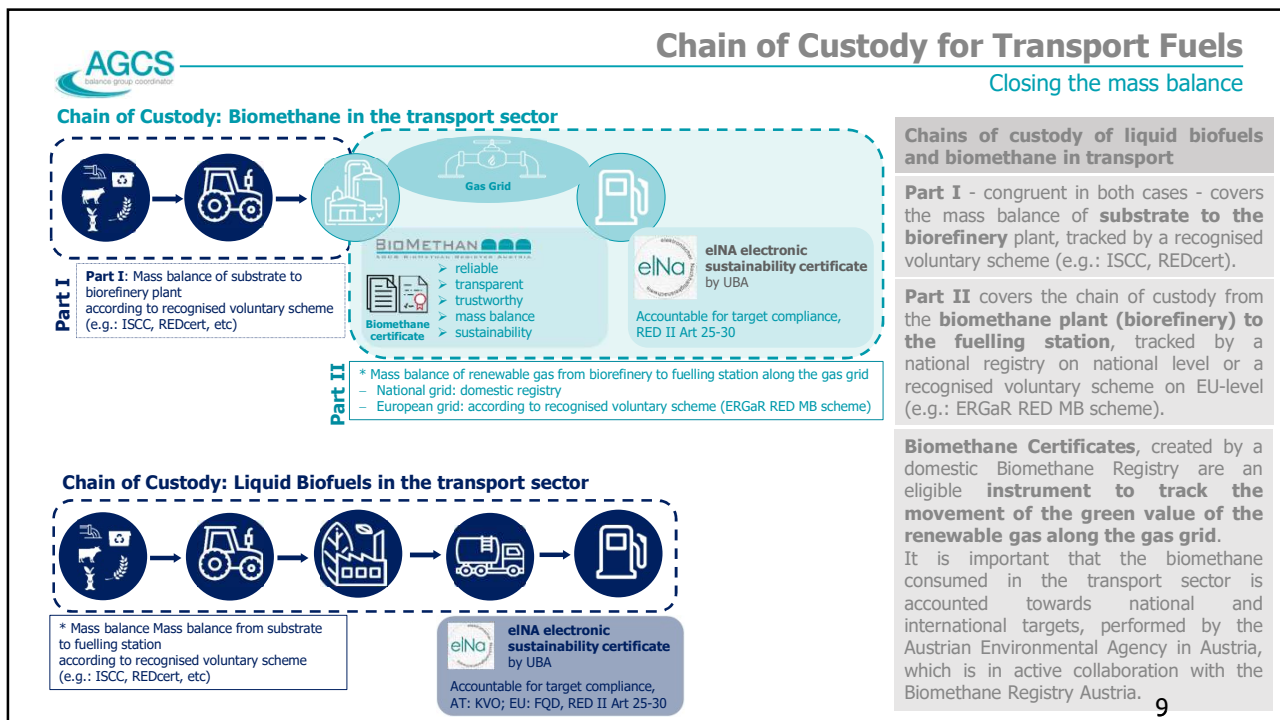
Sustainability Scheme Installation ID:
PoS created by:
Original Sustainability Certificate ID:
Sustainability Scheme Name:
Issuing Date of PoS:
Expiration Date of PoS:
Biomass Country of Origin:
GHG-emissions (gCO₂e/MJ):
Additional Information:
Proof of Sustainability:
Biomass Scheme Description of Sustainability Scheme:

Remarks by the Registry Operator

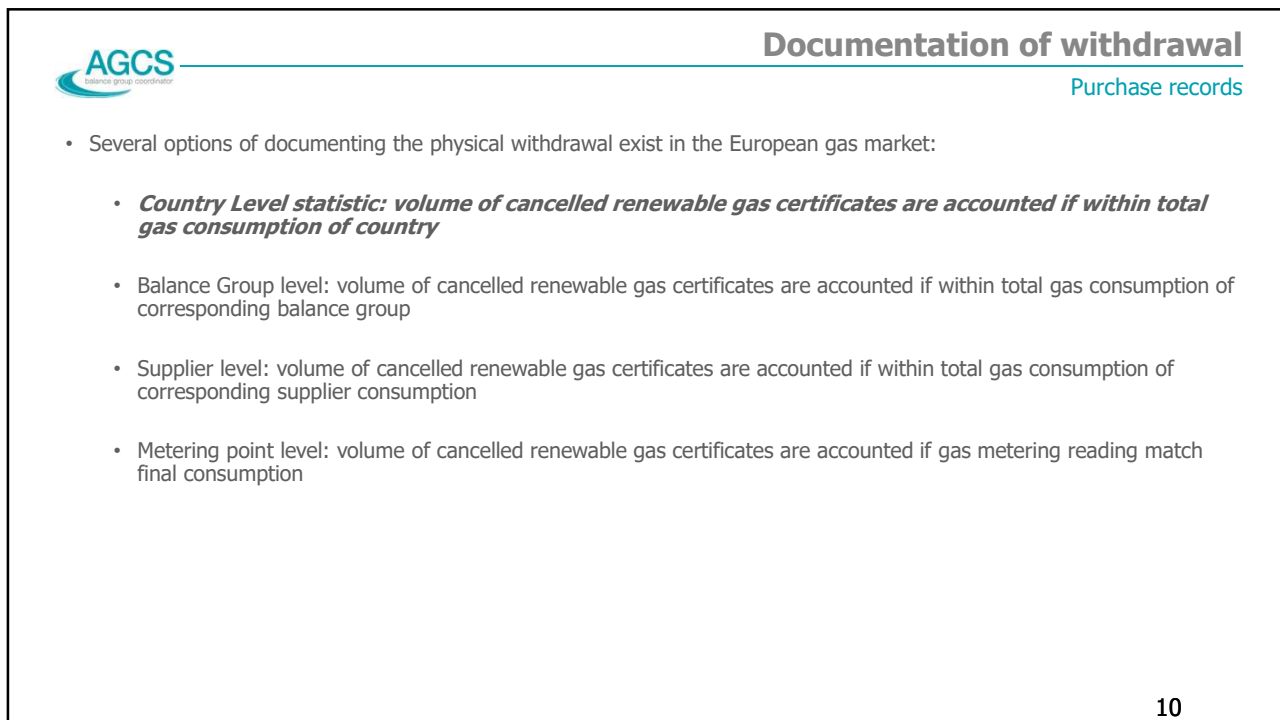
The Registry Operator merely confirms that the Biomethane Certificate with unique, current ID number BMN-012021-TESTFIRMA1-00425 existed and was cancelled at the time of issuing of this Cancellation Certificate. The Registry Operator does not confirm the correctness of data provided by Grid Operators, Registrants and Auditors to the Registry Operator on whose basis this Cancellation Certificate was issued. The Registry Operator cannot be made liable. The Cancellation Certificate ID may be used to determine status and details of the respective Biomethane Certificate in the Biomethane Registry Austria upon request to the Registry Operator. This Cancellation Certificate is only valid upon signature of at least two representatives of the Management Board of AGCS Gas Clearing and Settlement AG as Registry Operator of the Biomethane Registry Austria.

Clerks in Charge:
AGCS Gas Clearing and Settlement AG

8



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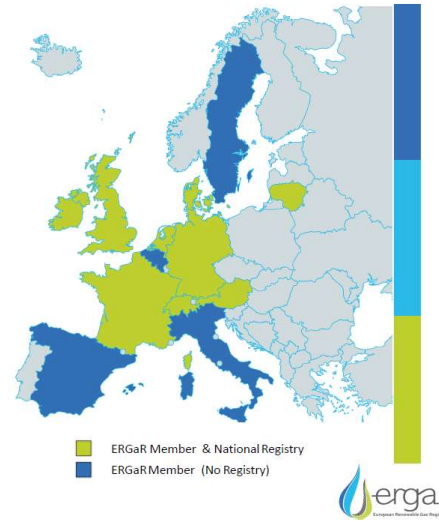
- Methods of transfer:
 - Book and Claim: pure transfer of certificates between two entities (cancellation at exporting side, creation on importing side)
 - Hubs can simplify transaction between several participants (possible options: ERGaR; AIB)
 - Mass Balance: documentation from injection to withdrawal
 - Lack of European definition allow for interpretation
 - **Documentation of injection and withdrawal using "one logistical facility" the interconnected European gas grid**
 - Documentation of injection and withdrawal plus cross-border capacity booking
 - Documentation of each transaction from injection to withdrawal
- Limitations:
 - Accounting Period: The accountability of certificates depend on the application purpose.
 - Validity Period: The validity period of certificates vary per application purpose.
 - Hybrid Model: Certificates may have no validity period because they can be accounted for a specific period only.

- Three different European platforms exist for transferring renewable gas volumes
 - ERGaR: established in 2016 and operational; private initiative
 - AIB: established for electricity GoO transfer and extended to renewable gases; private initiative
 - Union wide database: to be established for renewable transport fuels; EU initiative
- Each European platform support different application types of renewable gases
 - Voluntary markets
 - GoO – Guarantees of Origin
 - Transport fuels
- **Harmonisation of certificates, registries and transfer processes (Scheme) mandatory to accomplish cross-border transfers**
 - **Different approach/requirements for each application purposes**
 - **Inclusion in national statistics outstanding**
 - **Statistical transfer (REDII Article 8) as major future target**

Our Members

34 ERGaR members in 13 European Countries

- Established biomethane / renewable gas registries, appointed issuing bodies
- Gas DSOs & TSOs
- Biogas associations
- Traders
- Other major stakeholders of the European biomethane market



ERGaR Schemes

	ERGaR CoO Scheme		ERGaR RED MB Scheme	
APPLICATION PURPOSE	Consumer disclosure	Initiatives by Market & Society	Target compliance transport sector	
BACKGROUND	Art 19 RED II	Market and Scheme Rules	Sustainability & Mass Balance Art 25-31 RED II	
COMPETENT AUTHORITY	Issuing Bodies by Government Mandate	Registries	Voluntary Scheme recognised by EC	Registries via ERGaR RED MB Scheme
Rules and Standards	CEN – EN 16325	ERGaR CoO Scheme	E.g.: ISCC, REDCert, NTA 8080	ERGaR RED MB Scheme
DOCUMENT TYPE	GoO Guarantee of Origin	CoO Certificate of Origin	PoS Proof of Sustainability	ERGaR PoO Proof of Origin
STATUS (August 2021)	Launched in June 2021		Under recognition by the European Commission as voluntary scheme	



The diagram illustrates the ERGaR Hub as a central platform connecting two Renewable Gas Registries (Country A and Country B). It shows the flow of biomethane through physical transfer and certificate transfer, including injection into the gas grid, mass balancing, and withdrawal from the grid. National Biomethane Certificates and ERGaR Certificates (Proof of Origin) are also shown as part of the process.

Functionalities

functioning of ERGaR-Hub

ERGaR-hub as a central, Europe-wide platform solution

- Connection between biomethane registries
- Single and central interface for biomethane registries
- Replaces bi- and trilateral agreements
- Facilitates connection between multiple registers
- Facilitates establishment of new registers

- RED II conformity!
- Function: mass balancing of biomethane distributed along the European natural gas network with transfer of related sustainability certification

- **Legend:** * **mass balancing** with appropriate documentation is the optimum solution to track renewable fuel in the natural gas system:
 - Clearing data of clearing agents
 - Injection and withdrawal metering data of grid operators
 - Auditing
 - Other recognised systems

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ERGaR's Mass Balancing Function

Mass Balancing Function

- Existing mass balancing function shall be elaborated and adjusted to the European legislation (IA Voluntary Schemes) and national legislation, e.g. DE and UK.
- The System Participants Working Group has identified requirements for the documentation of mass balancing. The assessment is ongoing.

- Meetings with ISCC and REDcert were held, which are interested in improving information on financial support.

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Challenge Austria and abroad

3 registries in Austria
3 European platforms
Different biomethane attributes
Different Mass Balance Requirements

← →

Recommendation REGATRACE project:
“Establish one central registry per Member State for all national and European documentation purposes, covering all types of renewable gases with different certificate attributes”

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Statistical Transfer
The ultimate goal

- Market Participants require European rules on how to practically document renewable gas movements between countries allowing for statistical transfer.
- Otherwise transfers will be mostly for “trading purposes” not including its intrinsic value (CO2 mitigation potential).
- Statistical Transfer according to REDII Art. 8 require standardised processes accepted by Member States,
- European platforms should be considered as integral part for statistical transfers instead of bilateral agreements between Member States; if they fulfil MRR requirements and are acknowledged by European institutions
- Possibility of platform as recognized Voluntary Scheme such as ISCC or RED Cert!

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Doc. No. 2022-01-11
PV 01
Erstellt v. 01
Prüfung v. 01
Version 1.0.0

Contact

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EU ETS Monitoring and Reporting – CF Training event

Training Event on Biomass No. 2

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27 October 2022

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The biomass fraction

Activity data (t, m³ or TJ)

Oxidation factor

$$Emissions = AD \cdot EF \cdot OF$$

Biomass fraction

$$EF = EF_{pre} \cdot (1 - BF)$$

Emission factor

'Preliminary' emission factor
(i.e. fossil + biomass carbon)

- Source stream 100% fossil → **BF = 0**
- Source stream 100% biomass fulfilling RED II criteria → **BF = 1**
- BF to be determined for **mixed fuels or materials**

2



2

Biomass fraction: required tiers

Installation category	Source stream category	Tier required	Minimum tier (tier required technically not feasible or unreasonable costs)	Absolute minimum tier (technically not feasible or unreasonable costs for transitional period to be agreed with the CA)	If not at least tier 1 is possible
Cat. B or C	Major	Tier 3 (analyse biomass fraction)	Tier 2 (estimation methods)	Tier 1 (default values)	Fall-back approach
	Minor	Tier 3 (analyse biomass fraction)	Tier 1 (default values)	n.a.	
	de-minimis or >97% biomass	conservative estimates unless tier is achievable without additional effort			n.a.
Cat. A (≤ 50 kt)	Major	Tier 1 (default values)	n.a.	n.a.	Fall-back approach
	Minor	Tier 1 (default values)			
	de-minimis or >97% biomass	conservative estimates unless tier is achievable without additional effort			n.a.

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General rules for applicable tiers

- **Categorisations** in MRR Article 19:
 - **Installations:** “with the exclusion of CO₂ stemming from biomass”
 - **Source streams:** “fossil CO₂ per year”

- Provisions for **unreasonable costs**

- MRR Articles 18(2) and 38(5) apply
“provided that the relevant information ... is available to the operator”

Price = 20€/t

Source stream emissions

$$\text{Benefit} = P \cdot AEm \cdot IF$$

Improvement factor = 1%

Thereby, the MRR provides for simplified assumption “**RED II criteria complied with**” for categorisation and unreasonable costs (*AEm*: biomass rated zero)

IMPORTANT! If RED II criteria finally **not** satisfied for Annual Emissions Report
→ risk for operator of non-compliance (required tiers not met)

4



4

Tier 3: Analysis

- Article 39(2): use **relevant standard** and the **analytical methods**, provided the use of the latter is **approved by the CA**
- Common standard: EN 15440 ("Solid recovered fuels – Methods for the determination of biomass")
 - The **selective dissolution** method (**recommended for routine checks by RED II**)
 - must not be applied if materials listed in Table 1 of GD3 are contained at above 5% threshold
 - The **manual sorting** method (**recommended for routine checks by RED II**)
 - only applicable for optically and physically distinguishable fractions (particle size >10mm)
 - The **¹⁴C** method: **most reliable (reference method)**, but also most expensive
- Further standard for e.g. liquid fuels: EN 16640
 ("Bio-based products – Bio-based carbon content – Determination of the bio-based carbon content using the radiocarbon method")

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Tier 2: Estimation methods

- Operator to propose an **estimation method for the approval by the CA**:
 - **Mass balance** where the material is originating from a known production process
 - e.g. wood-based panel wastes, where the amount of (fossil) resins added is known
 - **Mass balance as used under Article 30(1) of the RED II** will also serve this purpose
 - **"Balance method"**: based on five mass balances and one energy balance. Each balance describes a certain waste characteristic (e.g. carbon content, heating value)
 - Commission may provide guidelines for further applicable estimation methods
 → none published at the moment

Recommendation: for not-yet proven methods, confirm validity by applying corroborative methods (e.g. analyses) at the beginning.

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Tier 1: Default values

- Published by **the CA**
- Published by **the Commission** → none available yet
- **Other default values** in accordance with **Art. 31(1)**:
 - national inventory values, analyses in the past and still representative, etc.
 - i.e. methods which usually correspond to tiers 1 and 2a/2b for e.g. NCV, EF

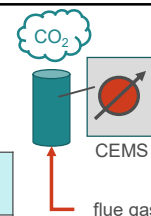
Recommendations:

- CA to publish default values, where appropriate and useful (best case: consistent with national inventories, equivalent to “Tier 2a” for e.g. EF)
- Collect published default values and consider publication by the Commission (EU-wide applicability)



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CEMS: General background



	QAL1	QAL2	QAL3	AST
When?	Before installation of the CEMS	Installation and calibration	During operation	Starting one year after QAL2
Frequency	Once	At least every five years	Typically between once per week and once per month	Annually
Who?	Instrument manufacturer	Accredited laboratory	Operator	Accredited laboratory
Relevant standards	EN 14181, EN ISO 14956, EN 15267-1, -2 and -3	EN 14181, EN 15259	EN 14181	EN 14181, EN 15259
Determination of flue gas flow	Suitable mass balance or CEMS (EN 16911-2)			→ See GD7 for further guidance

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Biomass and CEMS

- MRR Article 43(4) allows to subtract biomass emissions via:
 - a) Calculation-based approaches:
 - Based on **source streams** (input-based; only method applicable in phase 3)
 - **“Continuous sampling” from the flue gas** (not continuous measurement):
EN ISO 13833 (“Stationary source emissions – Determination of the ratio of biomass (biogenic) and fossil-derived carbon dioxide – Radiocarbon sampling and determination”)
 - b) The **“balance method”**, which is an estimation method in MRR terminology
(based on ISO 18466 “Stationary source emissions – Determination of the biogenic fraction in CO₂ in stack gas using the balance method”)
 - c) **Estimation methods** published by the Commission → none published yet

- Article 46 requires **corroboration with calculation-based approaches**
- **RED II criteria apply** in order to rate biomass zero and subtract



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Thank you for your attention

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EU ETS Monitoring and Reporting – CF Training event

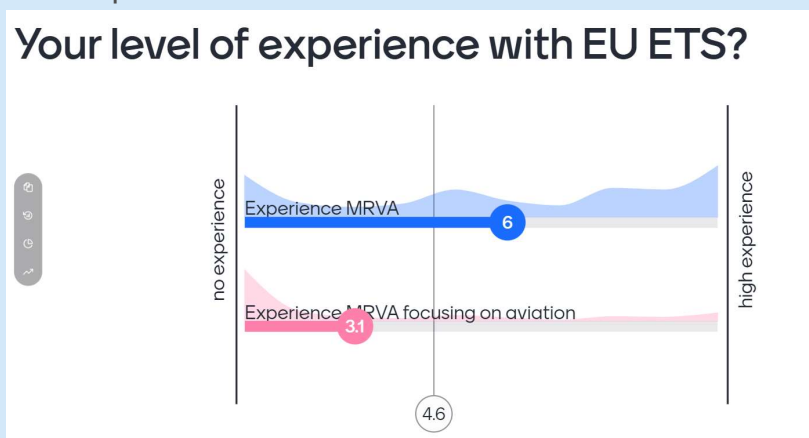
MRR requirements on biofuels (Aviation)

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27 October 2022

Mentimeter

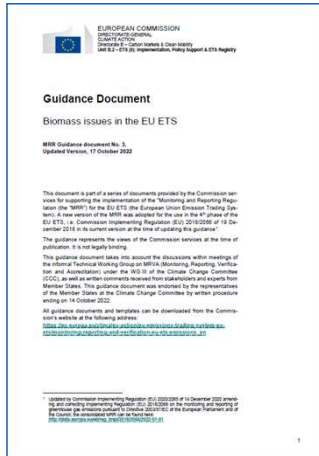
- Your level of experience with EU ETS?



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Guidance document 3



Guidance document 3 – “Biomass issues in the EU ETS” has been published:

https://climate.ec.europa.eu/system/files/2022-10/gd3_biomass_issues_en.pdf

Next step:

- GD2 for aircraft operators will be updated with GD3 content to make it a self-standing document again

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Definitions

- **‘biofuels’** means liquid fuels for transport produced from biomass;
- **‘bioliquids’** means liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass;
- *(For other definitions see presentation on biogas)*

Not relevant for aviation

*Only liquid fuels are currently used for aviation. The focus for this training event lies on liquid fuels.
GD 3: Liquid biomass is referred to as “biofuel”, as it is relevant for transport purposes!*

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Monitoring Reporting Regulation

- Article 38 “Biomass source streams” Only relevant for biofuels
- Biomass emissions from combustion can be zero rated if:
 - **Sustainability criteria** are fulfilled → Article 29 (2-7) of Directive (EU) 2018/2001 (RED II)
 - AND
 - **GHG saving criteria** are fulfilled → Article 29 (10) of Directive (EU) 2018/2001 (RED II)
- Biofuels produced from waste and residues are required to fulfil only GHG saving criteria, not the sustainability criteria
 - However residues from agricultural, aquaculture, fisheries and forestry have to fulfil both, sustainability and GHG saving criteria

NEW:
Art.
38(5)
MRR

5



RED II Article 29

- Article 29 Paragraph 2 to 7
 - (2) Biofuels, etc. shall be taken into account only where operators or national authorities have monitoring or management plans in place in order to address the impacts on soil quality and soil carbon
 - (3) Biofuels, etc. shall not be made from raw material obtained from land with a high biodiversity value
 - (4) Biofuels, etc. shall not be made from raw material obtained from land with high-carbon stock
 - (5) Biofuels, etc. shall not be made from raw material obtained from land that was peatland
 - (6) and (7) Biofuels, etc. produced from forest biomass shall meet the specified criteria to minimize the risk of using forest biomass derived from unsustainable production

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RED II Article 29(10) – GHG savings criteria

- For **biofuels, biogas consumed in the transport sector and bioliquids**, savings must be
 - at least 50% if produced in installations in operation before 5 October 2015,
 - at least 60% for installations starting operation until 31 December 2020,
 - at least 65% for installations starting operation from 1 January 2021.
- For **biomass fuels** (i.e. solid and gaseous biomass) consumed in EU ETS installations, GHG savings must be
 - at least 70% in installations starting operation from 1 January 2021 until 31 December 2025,
 - 80% for installations starting operation from 1 January 2026.
- Savings relate to *life cycle emissions* compared vs. a given fossil comparator.

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Alignment of EU ETS and RED II

- MRR Article 38(5) has to be applied from 1st January 2022
- New amendment: “... *Member States, or competent authorities as appropriate, may consider as fulfilled the sustainability and greenhouse gas emissions saving criteria referred to in that paragraph for biofuels, bioliquids and biomass fuels used for combustion from 1 January 2022 to 31 December 2022*”

In most Member States, RED II criteria have to be applied by aircraft operators only from 1 January 2023 (as to be reported in 2024).

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RED II: Source streams-biofuels

- Pure fossil source streams – no RED II criteria apply
- Pure biofuels where sustainability and/or GHG savings criteria apply
- Pure biofuels where RED II criteria do not apply
- Mixed source streams

Fossil / biofuels mix where either RED II criteria do not apply, or where they apply and are satisfied: EF is the preliminary EF multiplied by the fossil fraction

Fossil / biofuel mix where RED II criteria apply and are not satisfied: Treat whole source stream as fossil

Biofuel mix or fossil / biofuel mix, where RED II criteria apply and only a part of the biomass satisfies the applicable RED II criteria: treat it like the first example with the non-sustainable part considered as part of the fossil fraction

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CORSIA Eligible Fuels

- CORSIA eligible fuels: <https://www.icao.int/environmental-protection/CORSIA/Pages/CORSIA-Eligible-Fuels.aspx>

SARPS
Annex 16
Vol. IV

- Sustainable Aviation Fuel (SAF): *“A renewable or waste-derived aviation fuel that meets the CORSIA Sustainability Criteria under this Volume”*
- CORSIA lower carbon aviation fuels: *„A fossil-based aviation fuel that meets the CORSIA Sustainability Criteria under this Volume“*
- CORSIA eligible fuels are not known in the EU ETS legislation
- So far not relevant for European aircraft operators
- Full implementation of CORSIA in the EU ETS Directive is currently under discussion in the “Fit for 55” package

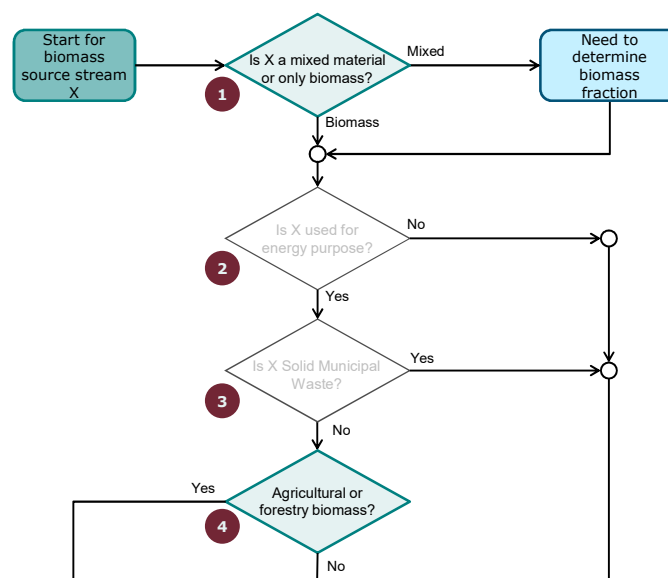
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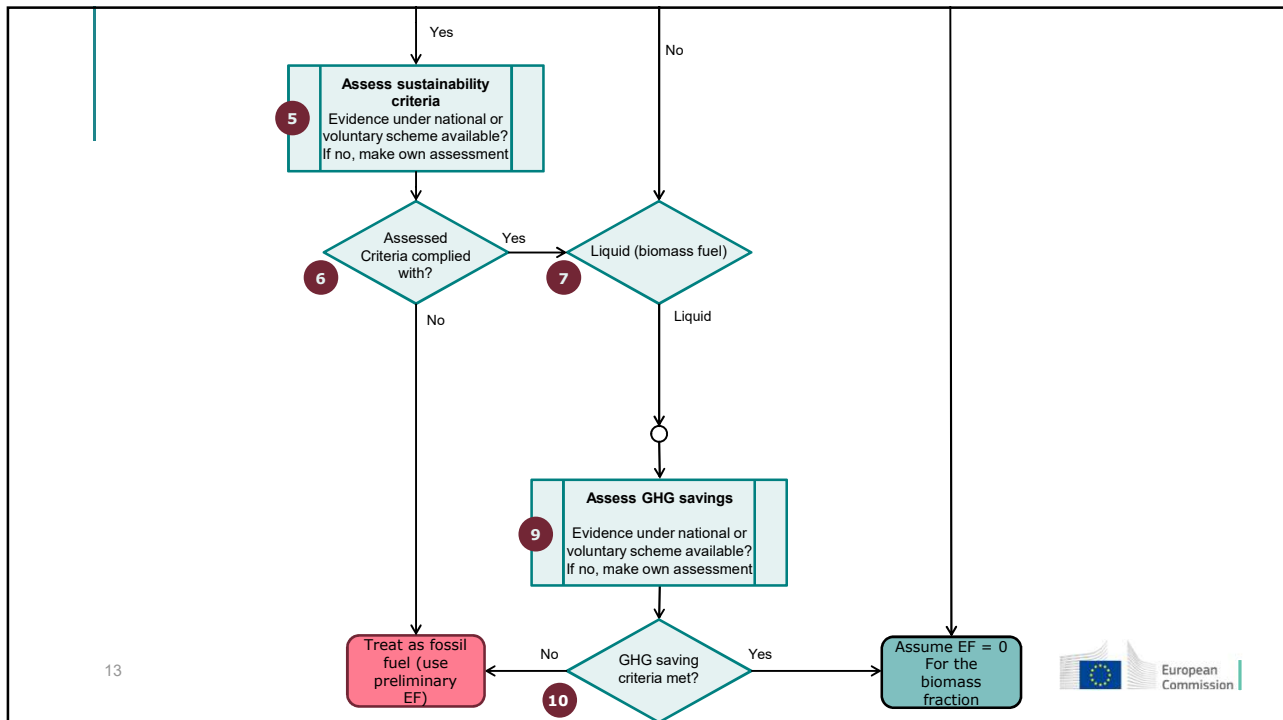


Differences EU ETS - CORSIA

	EU ETS	CORSIA
Regulated fuels	Biofuels (carbon from a biomass source)	Sustainable aviation fuel. An aviation alternative fuel that meets the CORSIA Sustainability Criteria under the SARPs
Reporting approach	If RED II criteria are met, Emission Factor = 0	Life cycle GHG emissions savings are deducted from emissions
Eligibility criteria	Sustainability and GHG savings criteria (>50/60/65%) of RED II	Document "CORSIA Sustainability Criteria for Sustainable Aviation Fuels" GHG savings >10% and sustainability criteria (quite different)
Certification	(Recognised) RED II certification schemes	Document: CORSIA Approved Sustainability Certification Schemes
Requirements for certification schemes	Implementing act under Art. 30(8) of RED II	Document "CORSIA Eligibility Framework and Requirements for Sustainability Certification Schemes"

RED II: Which criteria apply for aviation?





RED II: Which criteria apply for aviation?

- Step 1: Source stream consists exclusively of biomass, or whether it is mixed with a fossil fraction? Possibility to apply an emission factor of zero applies **only to the biomass fraction** of the source stream.
- Step 2: Source stream is used for energy purposes? If the answer is yes the following steps are needed. (No: assume EF=0)
- Step 3: If the source stream is **municipal solid waste**, no further criteria need to be taken into account. The **biomass fraction may be zero-rated**.

RED II: Which criteria apply for aviation?

- Step 4: Determine if the source stream is **any type of forest or agricultural biomass**, or **“(produced from) residues from agriculture, aquaculture, fisheries or forestry”**, as for such source streams the “land-related” sustainability criteria (Article 29(2) to (7) of RED II) apply. For **other residues or waste** (including all kinds of industrial wastes, if containing biomass), **only GHG savings criteria** need to be complied with. For **biomass stemming from animal wastes and residues from aquaculture and fisheries**, Article 29 of the RED II does not list specific land-related sustainability criteria. Operators will have to determine **only GHG savings based in the calculation methodologies** outlined in Annex V and VI of the RED II (therefore go to step 7)

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RED II: Which criteria apply for aviation?

- Step 5: Depending on step 4, the (land-related) **sustainability criteria for the production of biofuels, bioliquids or biomass fuel are to be assessed**. The operator can rely on the certification of the used material/fuel under a **national system or an (international) voluntary scheme** recognised by the Commission or the installation’s (or aircraft operator’s) Member State. If no proof of sustainability under a certification scheme is available to the operator, the operator would have to perform the assessment of the relevant criteria himself, and get the verifier’s confirmation.
- Step 6: If the previous step shows that **relevant sustainability criteria are not complied with**, then the operator has to **treat the material as if it were fossil**, (preliminary emission factor becomes the emission factor).

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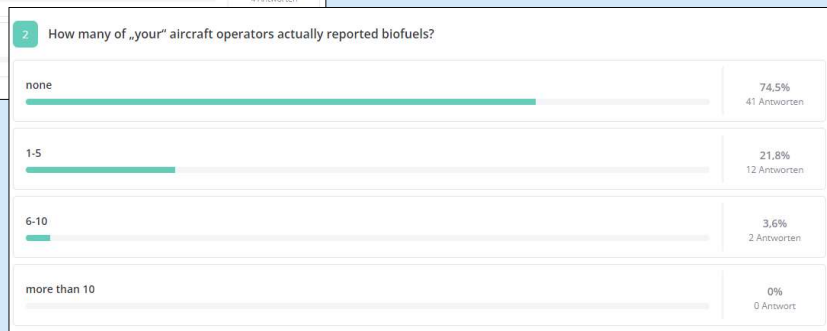
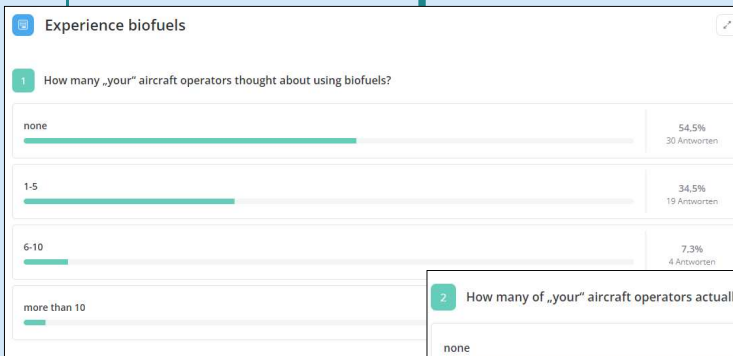
RED II: Which criteria apply for aviation?

- Step 7: If the **source stream is liquid**, the assessment of **GHG savings is mandatory**. Go to step 9.
- Step 8: As the additional requirement for “biomass fuels”, i.e. solid or gaseous biomass, applies only to installations starting operation from 1 January 2021, older installations (more exactly: installations which used biomass already before 2021) do not have to carry out further assessment.
- Step 9: According to Article 29(10) of the RED II, **required GHG savings** have to be **calculated in accordance with Article 31(1) of the RED II**.
- If the **GHG savings are above the applicable threshold**, the biomass can **be zero-rated**, otherwise it has to be treated as if it were fossil.

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Beekast – experience with biofuels



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RED II: Demonstrate compliance

- Demonstrate compliance with the sustainability and GHG savings criteria for **biofuels**, bioliquids and biomass fuels:
 - National systems
 - Voluntary national or international schemes that the MS accepts
 - By providing all relevant evidence and GHG calculations themselves, having the information appropriately audited (if accepted by MS)

Biofuels are relevant for aviation

For zero-rating biomass under the EU ETS MRV rules, the burden of proof concerning a biofuel, bioliquid or biomass fuel meeting the requisite sustainability and/or GHG savings criteria remains with the EU ETS operator or aircraft operator!

National systems I

- Currently partly still under development
- No complete overview available of Member States' national systems on providing evidence of biomass sustainability and GHG savings available. Operators and aircraft operators should obtain information on national systems from the relevant competent authority.
- The RED II does not explicitly require a Member State to publish dedicated information. However, it is considered best practice to **provide transparent information to operators**.

National systems II

Art. 30 (6) RED II

- Possibility to notify a national scheme to the Commission for recognition. The relevant information will be published on the Commission website, and all other Member States are required to accept the resulting certificates. (like it is the case of voluntary international schemes recognised by the Commission)

*However, the use of **international voluntary systems** may be desirable in many cases where the biofuel, bioliquid or biomass fuel is not used in the Member State where it is produced!*

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Voluntary schemes I

- Regarding schemes not (yet) recognised by the Commission, Member States may accept those schemes, if they come to their own conclusion that the scheme ensures compliance of the biomass with RED II criteria. (same conditions for schemes approved under RED I)
- Member States specific provisions (e.g. allowing **only** schemes that have been recognised by the Commission)
- Operators will always have to check with their competent authority or national legislation how to provide evidence that the biomass used complies with the RED II criteria. (exception: using schemes recognised by the Commission)
- Biofuel, bioliquid or biomass fuel certified under a scheme recognized by the Commission have to be recognised as **sustainable in all Member States**.

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Voluntary schemes II

- **Proof of sustainability** (=declaration of compliance with the scheme) issued by an economic operator certified under a recognised voluntary scheme means that the **emission factor can be zero-rated in the EU ETS**.
- Limitations:
 - Voluntary scheme may be approved only for some fuel types, some of the required criteria, or only regarding some steps of the value chain
 - GHG savings criterion depends on transport distance → required for each site where the biomass is used
 - Some sustainability schemes cover a wider scope → use only certificates which explicitly refer to those “EU RED II compliant versions” of the voluntary schemes
 - Some schemes are recognised with limited geographical scope
 - The Commission’s recognitions of voluntary schemes are usually valid for five years

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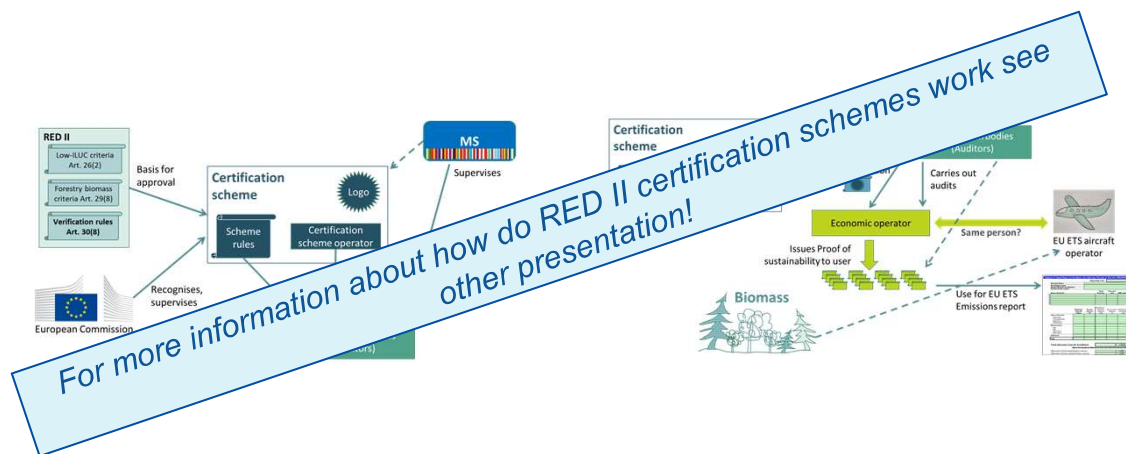
Voluntary schemes III

- Details on all **voluntary schemes recognised systems approved by the Commission** can be found here:
https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en

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How do RED II certification schemes work?



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Biofuel determination by aircraft operators

- Where batches of biofuels are physically delivered directly to the aircraft, the aircraft operator can determine the biomass fraction by laboratory analyses, or by using a mass balance **Art. 54 (2) MRR**
- However, much more likely: biofuel batches are not physically delivered to a specific aircraft, but to the airport tank system
- To handle this situation, aircraft operators are allowed to determine the **quantity of biofuels used** based on **purchase records** if they can provide evidence to the competent authority that there is **no double counting of those biofuels**. **Art. 54 (3) MRR**

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Biofuel determination based on purchase records

Art. 54 (3) MRR

- How to “...provide evidence to the competent authority that there is **no double counting of the same biofuel quantity, in particular that the biofuel purchased is not claimed to be used by anyone else**”?
- According to RED II, biofuels are tracked by a mass-balance. This is done in national registries, which also trace the information on proofs of sustainability. Every consignment of biofuel can be consumed only once.
- **Union database:** set up by the Commission for tracing liquid and gaseous transport fuels. Currently under development.
- When the Union database is fully operational, purchasing a “certified biofuel” will automatically be tracked by the Union database (including trans-border transactions) → Aircraft operator does not have to worry

Art. 28 (2) RED II

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Thank you for your attention

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Biomass in EU ETS

VERIFICATION REQUIREMENTS

Machtelt Oudenes

*Training Event on Biomass
27 October 2022*

1

Agenda

- Key MRR requirements and impact on verification
- What verifier needs to consider during verification
- What evidence an operator must provide to the verifier related to biomass
- What checks the verifier must carry out as part of process analysis
- Role of the EU ETS verifier and RED II auditor



2

Impact MRR biomass rules on verification

- New Article 38(5) MRR aligns application of biomass rules with the RED II
 - ✓ Biomass can only be zero rated in EU ETS if sustainability and GHG savings criteria in Article 29 (2) to (7) and (10) REDII do not apply or if applicable criteria have been met
- Some biomass related concepts are similar to phase 3 rules:
 - ✓ How to assess completeness of source streams
 - ✓ How to check control activities and procedures used in the monitoring of biomass
 - ✓ The type of checks carried out on data and methodology (e.g. plausibility, cross checks)
- Other concepts are new for phase 4
 - ✓ Strengthened rules on sustainability criteria and GHG savings (REDII) criteria
 - ✓ New rules on monitoring and specific issues such as waste and injection of biogas in grid



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Elements a verifier needs to consider

- The type of biomass source stream (100%, 97% or higher, less than 97%)
 - ✓ The methodology is more complex with mixed source streams with less than 97% biomass → a preliminary EF is applied.
- Applicability of, and compliance with REDII criteria
 - ✓ Whether or not the operator can zero rate emissions has impact on accuracy of data.
 - ✓ It is therefore important for the verifier to check whether REDII criteria are applicable and, if yes, whether REDII criteria have been met.
- Heterogeneity and composition of different batches of biomass
 - ✓ The verifier needs to be aware that there can be differences between batches: e.g. for one batch biomass criteria have been met whereas for the other batch these criteria have not been complied with.



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Elements a verifier needs to consider

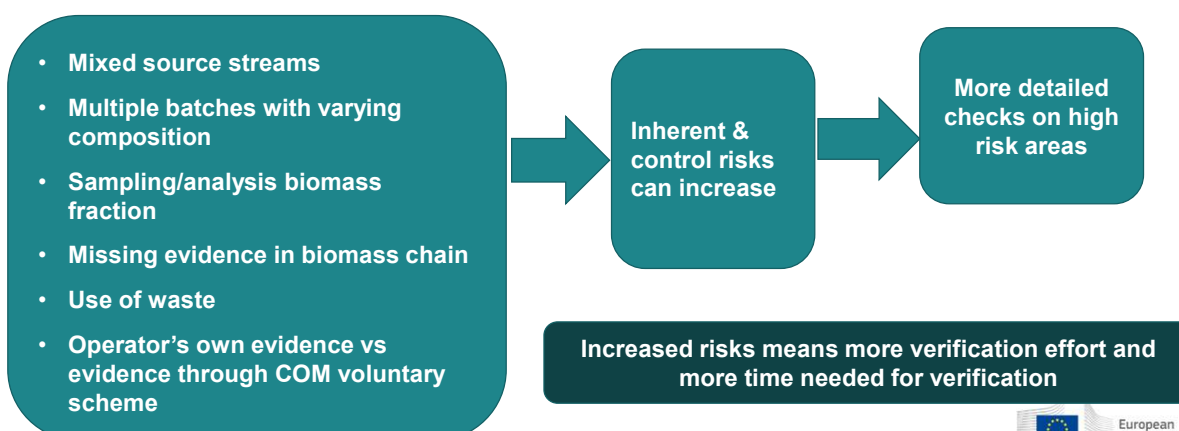
- Complexity of the biomass chain from harvesting to fuel consumption
 - ✓ The evidence of sustainability must cover the whole biomass chain and the verifier needs to be aware of any limitations in scope and quality of evidence the operator provides.
- The approach used to demonstrate compliance with REDII criteria
 - ✓ The evidence and checks of verifier differ if a voluntary national/ international recognized scheme is used, a national scheme established by the MS or if the operator provides all necessary evidence and GHG calculations itself.
- The monitoring methodology applied to determine biomass fraction
- Applicability of waste, injection of biogas in grid and applicable method, whether fossil and biomass materials are used in the same process



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Impact on steps in verification process

- Elements play a role in the allocation of time in pre-contract stage, strategic analysis and risk analysis which in turn impacts verification planning & checks



6

Biomass related evidence from operator

- In order to assess the accuracy of biomass related data and compliance with MP and MRR, the verifier needs information from operator (Art. 10 AVR):
 - ✓ Monitoring plan and supporting documentation;
 - ✓ Evidence on compliance with REDII criteria which depends on how operator demonstrates compliance with REDII criteria.
 - Two types of evidence: certification and proof of sustainability;
 - Additional evidence applies when national schemes or operator's own evidence is used to demonstrate compliance with REDII criteria.
- Verifier needs to determine at various stages what evidence is needed and whether it is sufficient.
- Verifiers should start early to early identify what evidence is missing and what follow-up action is needed.



7

Verifier's checks on biomass related issues

As part of the process analysis the verifier will perform checks on MP, application of methods & rules and accuracy of data.

Issue	Examples of checks
Source stream	<p>The verifier will check completeness and description of source streams:</p> <ul style="list-style-type: none"> • are all biomass source streams included in MP? • what type of biomass is used and does that reflect actual situation? • are source streams correctly delineated/classified in line with MP & MRR? • are batches of biomass the same source or different source streams and is that applied consistently?
Monitoring of biomass	<p>The verifier will perform similar checks as for other types of monitoring methodologies:</p> <ul style="list-style-type: none"> • is the monitoring methodology applied in line with MP? • checks on sampling & analysis activities and evidence of accredited/non – accredited labs

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ision

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Verifier's checks on biomass

Issue	Example of checks
Applicability of REDII criteria	<p>The verifier checks:</p> <ul style="list-style-type: none"> evidence provided on the nature of biomass source streams to assess applicability of REDII criteria; whether evidence of compliance with REDII criteria is correctly attributed to different batches of biomass; procedures that monitor the batches of biofuels and specify which criteria are applicable.
Compliance with REDII criteria via approaches <ol style="list-style-type: none"> voluntary (CION recognised) scheme national scheme operator's self evidence 	<p>The REDII auditor will have already performed REDII audit. The approach used to demonstrate compliance with criteria determines:</p> <ul style="list-style-type: none"> the extent to which the verifier can rely on scheme's certificates and audited information; the checks that the EU ETS verifier carries out on the schemes, certificates, declarations and evidence.



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Verifier's checks on biomass

Issue	Example of checks
Biomass related procedures described in MP	<p>The verifier checks whether the procedure</p> <ul style="list-style-type: none"> is established, properly documented and maintained; contains the information recorded as described in the approved MP and MRR; has been correctly implemented and is up to date; is applied throughout the reporting year; is effective to mitigate the inherent and control risks.
Specific issues on waste	<p>The CA will have approved in MP whether fuel/material is waste. The verifier will check whether the classification is in line with approved MP. However, the verifier can still comment if it identifies the fuel/material as described in MP is not considered waste.</p>
Specific issues on biogas	<p>The verifier will check whether</p> <ul style="list-style-type: none"> the applied monitoring methodology is in line with approved MP; there is double counting of the same biogas quantity and the operator and biogas producers are connected to the same grid; RED II criteria are complied with (data in biogas registry or other evidence provided by operator).

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EU ETS verifier's competence

- To be able to assess biomass related issues in EU ETS verification, the verifier needs to have a knowledge of biomass requirements:
 - ✓ Relevant legislation: Art 38, 39, 43, 54 MRR, REDII and Implementing Regulations;
 - ✓ Applicable national legislation that may impose additional requirements;
 - ✓ MRR GD 3 on biomass and MRR GD2 on use of biofuels in aviation;
 - ✓ Updated KGN II.3 which explains in detail what verifiers need to consider and check;
 - ✓ Updated GD III on verification in EU ETS Aviation which will explain the role of the verifier in assessing accuracy of data and compliance with rules if biofuels are used.

REDII audit is NOT EU ETS verification and requires other specific competence requirements.



Role of REDII auditor vs EU ETS verifier

	RED II auditor	EU ETS verifier
Objective / type	Ex ante audit with specific rules The auditor assesses: <ul style="list-style-type: none"> • processes of economic operator • ability to manage compliance with criteria 	Ex post verification based on AVR The verifier assesses: <ul style="list-style-type: none"> • compliance with MP/MRR • accuracy of emission data
Standards/ Competence	ISO 19011 or equivalent standard ISO 14065 (audit GHG Values)	Verification according to AVR & ISO 14065
	ISO 17065 accreditation ISO 14065 (GHG values)	AVR & ISO 14065 accreditation
	Experience and knowledge REDII audit/ REDII Criteria/ technical knowledge	EU ETS knowledge: Article 38 – 40 AVR

Can EU ETS verifier carry out REDII audit?

- The EU ETS verifier has to meet the required competencies that apply to REDII audit (requirements from the Implementing Regulation 2022/996);
- There shall be no conflict of interest;
- Accreditation according to ISO 17065 and ISO 14065 or, if a national scheme is involved, the required qualifications in MS law.

REDII audit is a separate audit requiring a separate risk analysis, verification activities & reporting.



13

Next steps

- KGN II.3 is being updated to provide guidance on the role of EU ETS verifier in assessing biomass related issues in EU ETS verification
 - ✓ Minor changes compared to first draft
 - ✓ Some additional clarification may be included as a result of the training
 - ✓ A final version will be available soon
- GD III on verification of EU ETS aviation will be updated to clarify the role of EU ETS verifier in assessing biofuel requirements in EU ETS verifications
 - ✓ Close alignment with MRR guidance 2 on MRR aviation
 - ✓ Update expected End 2022/ January 2023



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Thank you for your attention

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Verification of biomass issues in ETS

What the verifier should be looking for when presented with evidence from a national or international voluntary scheme/ national schemes

Sven Starckx

*Training Event on Biomass
27 October 2022*

1

Biomass

Key Requirements

- A key amendment of the MRR is the addition of Article 38(5) which aligns the application of biomass requirements with the RED II Directive. Biofuels, bioliquids and biomass fuels used for combustion in EU ETS installations or by aircraft operators have to meet sustainability and GHG savings criteria laid down in Articles 29 (2) to (7) and (10) of the RED II Directive in order to apply an emission factor of zero.

The compliance with the criteria laid down in paragraphs 2 to 7 and 10 of Article 29 of Directive (EU) 2018/2001 shall be assessed in accordance with Articles 30 and 31(1) of that Directive.

Sustainability and/or GHG savings criteria (REDII criteria) are not applicable in all situations.



2

Verification of biomass-related issues

Elements to consider

- Several types of biomass source streams: i.e. 100% biomass (which comply with REDII criteria or to which REDII is not applicable), mixed source streams etc.
- Different monitoring requirements may apply to each of these types of source streams
- Biomass is heterogeneous and different batches may have other composition
- Member States decision (compliance RED II)
- Chain can be complex / evidence may not cover the whole chain
- Approach used by operator to demonstrate compliance REDII criteria
- Which monitoring methodology to determine biomass fraction (if applicable) and the preliminary EF
- Whether waste is used, biogas
- Co-processing (use of fossil and biomass materials in the same process)
- Number of batches
-

When preparing for verification in the pre-contract stage, the strategic analysis and risk analysis these factors should be taken into account.

Impact on time allocation ETS verification



3

REDII criteria apply

Verification of compliance with sustainability and GHG savings criteria Art.30 and 31(1)

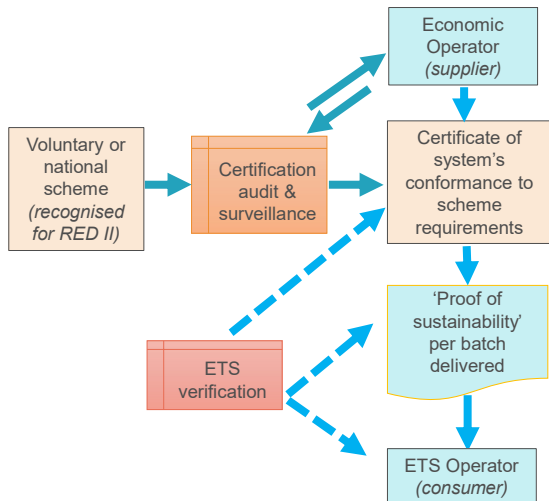
- A **Voluntary national or International scheme** that is accepted by the Member State. If this scheme is also formally recognised by the Commission, certificates and proofs of sustainability issued to economic operators by the scheme must be accepted in every Member State
- A **National scheme** established by the Member State. MS legislation will regulate what evidence is required for demonstrating compliance with the criteria Art.29 (2) to (7) and (10);
- The **operator** provides all necessary evidence and GHG calculations and this information is audited (if accepted by a MS)

- **Voluntary Scheme:** economic operator has received a valid certification from a certification body in line with Implementing Regulation 2022/996 (rules to verify sustainability and GHG savings criteria and low indirect land use change-risk criteria) and is capable of issuing 'proofs of sustainability'
- **National Scheme:** the type of evidence is dependent on the individual national scheme and national rules. This could be a certificate, statement of sustainability or other documentation that proves compliance with RED II criteria.



4

Verification of biomass-related issues



Compliance with REDII criteria

- Annex I of the MRR requires the operator, if applicable to include in the MP a description of a written procedure to assess whether biomass sources streams comply with the requirements of MRR Art.38(5)
- Often the ETS operator or aircraft operator will rely on data and information provided by third parties (i.e. supplier or producer of the biomass)

Be Aware:
 Biomass certification schemes under RED II can cover different parts of the supply chain, and 'economic operators' are often certified for only part of the supply chain. For EU ETS the burden of proof is on the user of the biomass (the ETS operator or aircraft operator).



Verification of biomass-related issues

“Certificate” vs “Proof of Sustainability”

- A **certificate** certifies that an economic operator complies with the rules of the certification scheme.
- The **Proof of Sustainability** is issued by the economic operator for confirming that a certain consignment of biomass material, biofuel, biogas or biomass fuel fulfils the sustainability or GHG savings criteria

ETS verifier attention (certificate):

- Scope of certification ?
- Validity of certificate ?
- Explicit Reference to RED II?
- Suspension EO/CB?

ETS verifier attention PoS: (Voluntary Scheme)

- Proof of sustainability for each batch available ?
- Full value chain covered ?
- In case GHG savings, change in sourcing plant(s)

National Scheme:
 Evidence could be a certificate, statement of sustainability of other evidence that proves compliance with sustainability and/or GHG savings criteria



Verification of biomass-related issues

Example list of certified economic operators

Status	Certificate ID	Certificate Holder	Scope*	Raw Material	Add-Ons**	Products	Valid From	Valid Until	Suspended	Issuing CB	Map	Certificate	Audit Report
	EU-ISCC-Cert-DE119-47222828	Eco-1 Bioenergi AS, Oslo, Norway	TRS				2022-09-14	2023-09-13		ASG			
	EU-ISCC-Cert-DE111-2010949	Unitären Produktions- und Handelseinheitsunternehmens "SARIA", Podossie, Berez district, Brest, Belarus	CP, PO, TR, WH	Animal fat (Cat ...)			2015-06-16	2016-06-15		ABCERT			
	EU-ISCC-Cert-DE111-20101051	Unitären Produktions- und Handelseinheitsunternehmens "SARIA", Podossie, Berez district, Brest, Belarus	CP, TRS	Animal fat (Cat ...)			2016-06-14	2017-06-13		ABCERT			

AACS - Liste der registrierten Unternehmen / List of economic operators

Registrierte Unternehmen im Zuge der nachhaltigen Produktion von Biokraftstoffen, flüssigen Biobrennstoffen und Biomassebrennstoffen (gemäß Richtlinie (EU) 2018/2001) *

List of economic operators for sustainable production of biofuels, bioliquids and biomass fuels (according Directive (EU) 2018/2001)

Registrierungsnummer (certificate no.)	Name des Unternehmens (economic operator)	Datum der Registrierung (valid from)	Status (status)	Registrierung bis (valid until)	Grund der Aufhebung** (reason for withdrawal**)	Prüfbericht (summary audit report)
AACS-0002	Fuchshuber Agrarhandel GmbH Mühlbachstraße 151 4063 Hörnsching	10.11.2021	definitiv	31.12.2022		PDF
AACS-0006	Franz Glanz GmbH Mühling 6 3822 Karlstein	11.11.2021	definitiv	31.12.2022		PDF
AACS-0007	Brambur Vertriebsgmbh Gröndner Straße 15 3931 Schweggers	18.07.2022	definitiv	31.12.2023		PDF
AACS-0008	Lagerhaus Elerding-OO Mitte eGen Bahnhofstraße 51-55 4070 Elerding	31.08.2021	definitiv	31.12.2022		PDF

PAGE CONTENTS

Voluntary schemes under the revised Renewable Energy Directive

Recognition criteria

Approved voluntary schemes and national certification schemes

Documents

Approved voluntary schemes and national certification schemes

The European Commission has so far formally recognised 14 voluntary schemes, namely

Voluntary scheme	Annual report 2021
Biomass Biofuels voluntary scheme (BBVs)	link
Better Biomass	link
Bonsucro EU	link
International Sustainability and Carbon Certification (ISCC EU)	link
KZR ING system	link
REDcert	link
Red Tractor Farm Assurance Combinable Crops & Sugar Beet Scheme (Red Tractor)	link
Roundtable of Sustainable Biofuels EU RED (RSB EU RED)	link

https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en#approved-voluntary-schemes-and-national-certification-schemes



Verification of biomass-related issues

Certificates

!! A certificate may not cover all types of biomass or the whole biomass chain of custody (e.g. geographic limitation,..)

Certificate
according to the Renewable Energy Directive (RED II) (Directive (EU) 2018/2001) on the promotion of the use of energy from renewable sources (recast)

Certificate Number: EU-ISCC-Cert-SE208-00000387

DNV Business Assurance Sweden AB, Box 6046, Solna, Sweden certifies that

Lindemans Skog AB
Jämsnäsgränd 9, 533 40 Ljusånger, Sweden
complies with the requirements of the certification system ISCC EU (International Sustainability and Carbon Certification) and the requirements of the RED II.

This certificate is valid from 10.05.2022 to 09.05.2023.

Point of Origin: Ethanol Plant

Standstill: 10.05.2022
Place and date of issue: DNV

The issuing Certificate Body is responsible for the accuracy of this document. (Annex 1, 2 & Appendix 1, 10, 20, 22)

Page 1 of 2

Annex to the certificate:
Sustainable materials handled by the certified site

This annex is only intended for internal use and is not for public distribution. It is not a legal document. It is only valid in connection with the certificate. EU-ISCC-Cert-SE208-00000387 issued on 10.05.2022

Input material	Output material	ISCC EU valid process	ISCC EU valid product	ISCC EU valid plant
Wheat	Bioethanol (distillate)	2	Yes	NA
Food waste	Bioethanol (distillate)	2	Yes	NA
Starch slurry (low grade)	Bioethanol (distillate slurry low grade)	2	Yes	NA

The issuing Certificate Body is responsible for the accuracy of this document. (Annex 1, 2 & Appendix 1, 10, 20, 22)

Page 1 of 2

AACS - Zusammenfassender Prüfbericht
Registrierung / Überwachung im Zuge der nachhaltigen Produktion von Biokraftstoffen und flüssigen Biobrennstoffen gemäß Richtlinie (EU) 2018/2001

AACS - Summary Audit Report
Registration / Monitoring of a company in the scope of sustainable production of biofuels and liquid bioenergy according to Directive (EU) 2018/2001

Agromarkt Austria, Dresdner Straße 79, A-1200 Wien, E-Mail: cert@agromarkt.at

K-0

1 ZERTIFIZIERUNGSGELEGENHEIT	Agromarkt Austria
2 KONTAKT	E-Mail: cert@agromarkt.at Internet: http://www.agromarkt.at/aktuelle-tiler/registrierung
3 ZERTIFIZIERTES UNTERNEHMEN	Fuchshuber Agrarhandels GmbH
ADRESSE	Mühlbachstraße 151 4063 Hörnsching
4 DATUM DER VOR	03.08.2021
5 SYSTEM ÜBERPRÜFT	AACS
6 REGISTRIERUNGSGELEGENHEIT	AACS-0002
7 REGISTRIERUNG GÜLTIG VON / bis	10.11.2021 - 31.12.2022
8 STATUS DES UNTERNEHMENS	<input checked="" type="checkbox"/> ERSTKÄUFER <input type="checkbox"/> HÄNDLER <input type="checkbox"/> VERARBEITER
9 STANDORTE	Mühlbachstraße 151, 4063 Hörnsching

Agromarkt Austria | www.agm.at | Version: 02 | Seite 1 von 2

AACS - Zusammenfassender Prüfbericht
AACS - Summary Audit Report

K-0

10 AUSGANGSPUNKTE	<input checked="" type="checkbox"/> WEIZEN <input checked="" type="checkbox"/> RAPS <input checked="" type="checkbox"/> SOJA <input checked="" type="checkbox"/> MAIS <input type="checkbox"/> SONSTIGES:	<input type="checkbox"/> GERSTE <input type="checkbox"/> RAPSÖL <input type="checkbox"/> SONNENBLUME <input type="checkbox"/> ZUCKERERBE <input type="checkbox"/>	<input checked="" type="checkbox"/> TREPKALE <input checked="" type="checkbox"/> SOJAERBE <input type="checkbox"/> SONNENLÄMEL <input type="checkbox"/>
11 THEE - WERTE	<input checked="" type="checkbox"/> STANDARD	<input type="checkbox"/> NUTZ 2	
12 FESTGESTELTE UNREGELMÄSSIGKEITEN	Keine Unregelmäßigkeiten		
13 WEITERE ANFORDERUNGEN AN FORTSCHRITTSBERICHTEN UND ZERTIFIKATEN			
14 ORT, DATUM UND NUTZWECK DER BEWERTUNG	Wien, 10.11.2021 Für die Fortschrittsberichterstattung des GB 1		

Agromarkt Austria | www.agm.at | Version: 02 | Seite 2 von 2



Verification of biomass-related issues

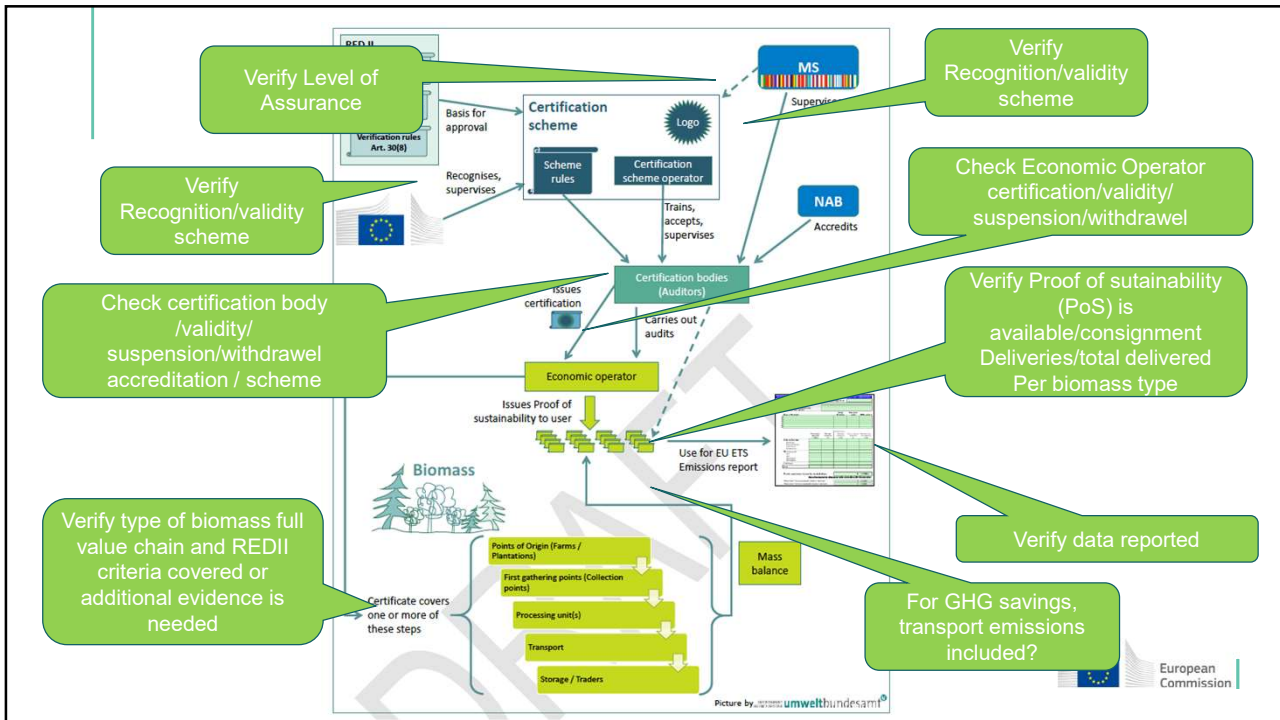
Proof of Sustainability

- Source Stream
- PoS cover full value chain
- Available each batch
- Validity certificate/date issuance
- Quantities
- Applicable sustainability criteria
- In case of GHG savings, transport emissions



Figure 1: Step-by-Step Traceability of Sustainability Characteristics through Sustainability Declarations
© ISCC System GmbH

Use for ETS emissions report



Thank you for your attention



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Operator Self-Evidence to demonstrate RED II criteria compliance

What ETS verifiers should look out for.

Lucy Candlin

Training Event on Biomass
27 October 2022

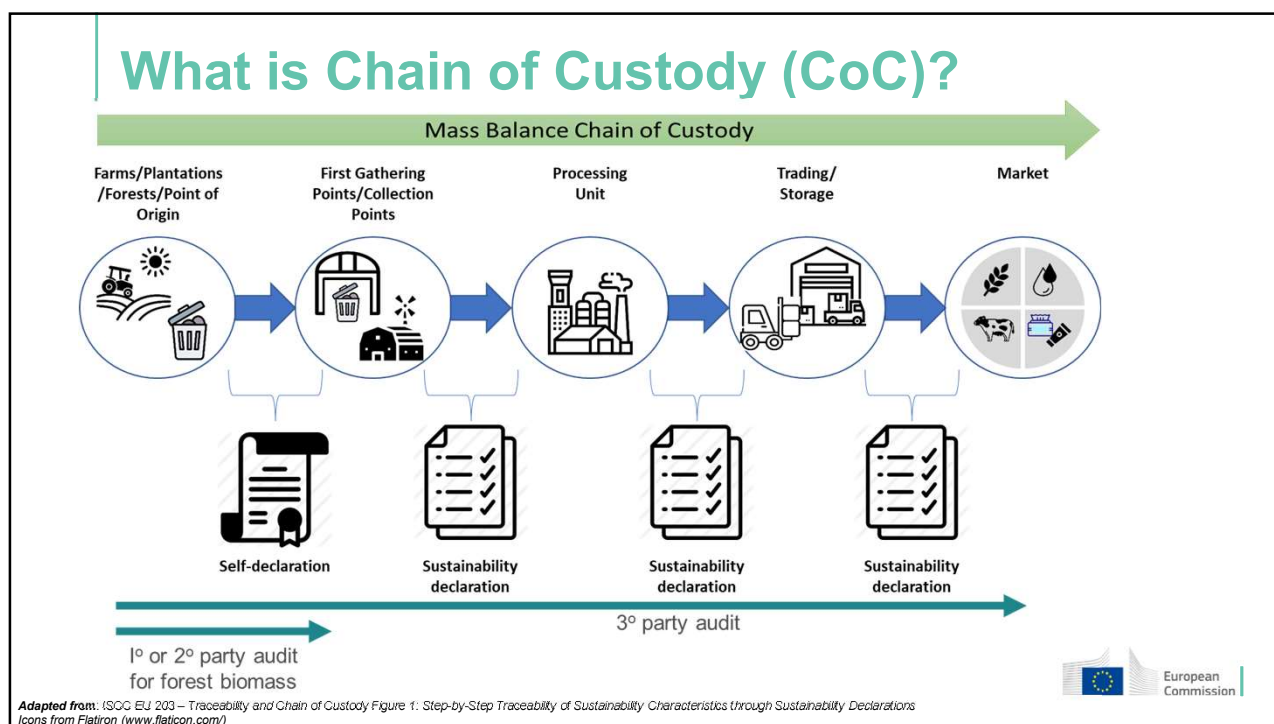
1

Focus & assumptions

- Objective – to focus on ETS Verifier’s approach to checking Operator’s ‘self-evidence’ of compliance (*the ‘last resort approach’*)
- Presentation assumes that:
 - RED II criteria for EU ETS are applicable/have been met
 - MS CA allows for ‘self-evidence’ approach & establishes rules for it
 - The ETS Operator is providing evidence it has satisfied itself of compliance
 - The ETS Operator’s Auditor conforms to national rules on competence, accreditation and audit process
- Presentation looks at:
 - What EU ETS Verifiers should look for as evidence from the Operator
 - What should be covered by an Operator’s compliance management system and Chain of Custody (CoC) audit
- The following Regulations are (mostly) relevant:
 - Commission implementing Regulation 2022/996 on verification rules
 - Commission Regulation (EU) .../... of XXX on establishing operational guidance on the evidence for demonstrating compliance with the sustainability criteria for forest biomass



2



3

Audits required by RED II

Independent auditing to ensure:

- Systems are accurate, reliable and protected against fraud
- Materials are not intentionally modified or discarded so as to become a waste or residue
- Frequency and methodology for sampling and robustness of data
- Records to support the 'proofs of sustainability' issued

Accreditation/approval & competence of Auditors for 'schemes' is given in Regulation 2022/996

National rules apply for audits that are not part of 'schemes'

4

Questions for the ETS Verifier to ask itself:

- How has the Operator satisfied itself that each batch of its fuels meets RED II criteria?
- Is there evidence of:
 - A documented Chain of Custody Management System (*is it certified e.g to ISO9001 or equivalent?*)
 - A CoC Risk Assessment as part of procurement processes
 - A Mass Balance to demonstrate completeness and no double counting
 - GHG calculations & supporting evidence (and these cover 'life-cycle' emissions)
 - Checking of data entry onto the Union Data Base?
- An Independent audit report on biomass and its CoC, including:
 - Auditor competence, qualification & 'accreditation'
 - Scope – full chain back to point of origin & RED II criteria
 - Audit protocol/standard applied for:
 - The subject matter criteria: RED II
 - The audit itself: conduct of the audit
 - Detailed checklist: what will be checked, when and where
 - Supporting evidence compiled
 - Report completeness - includes assessment of:
 - Criteria applicability, CoC, CoC Management System, GHG calculations, supporting evidence; 'proofs'....

For the ETS Verifier, checks on Operator's 'own evidence' approach are more like doing a Technical Review of the independent audit and the compliance system to make sure they meets expectations



5

Checks on the CoC Management System (1):

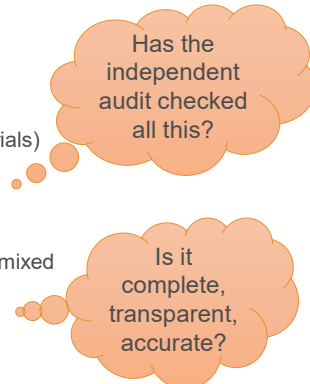
- Does it include, for each biomass for example:
 - Material types & characteristics, such as:
 - Biomass fuel, virgin, waste etc & evidence to support classifications
 - What the 'Point of Origin' is:
 - is the evidence for land use (and LULUCF for forestry) adequate?
 - Is there an available risk assessment for the region/location?
 - Full chain of custody description/diagram
 - Suppliers, customers & sub-contractors (evidence of contracts etc) all included?
 - When material was grown/sourced/produced *e.g harvesting and pellet production?*
 - Is there 'legal ownership certification in the chain (is it unbroken)?
 - What type of processing/co-processing is involved?
 - Type, number and volume/mass of 'consignments'
 - Adequate 'materials' management system, book-keeping & records *e.g Sales/delivery records; opening/closing stocks*



6

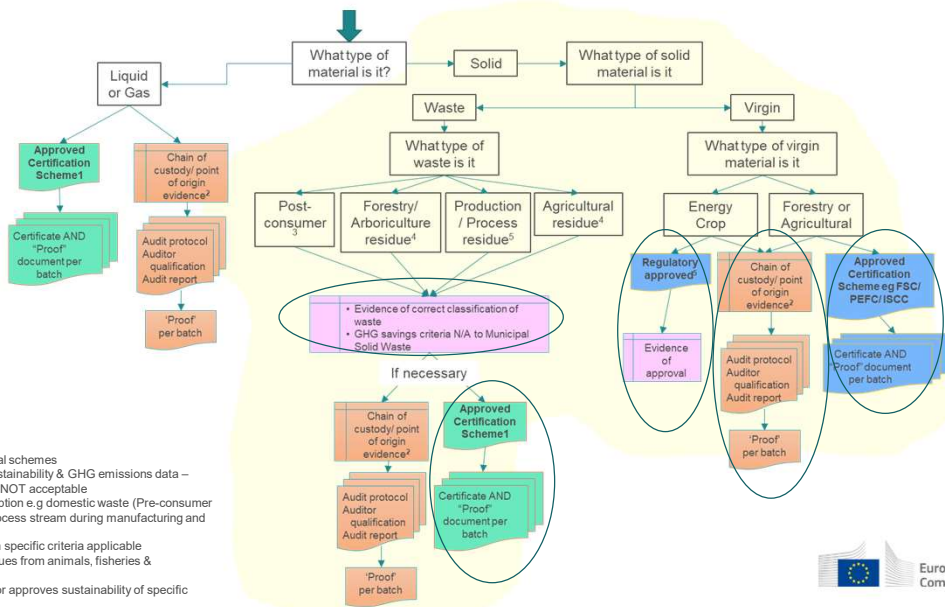
Checks on the CoC Management System (2):

- Does it include, for each biomass for example.:
 - Method description for things like the Mass Balance, including:
 - Requirements for suppliers down the chain
 - Input feedstock/output product/ processed material (eligible & non-eligible materials)
 - Transfers and shipping etc have been taken into account
 - Calculations, formulae, conversion factors & default values are clear
 - Demonstrates completeness and no double counting/ omission where fuels are mixed
 - An appropriate time period for balancing*
 - Links sustainability information to physical batches
 - Capable of generating 'sustainability proof' declarations for each fuel batch
 - Approach and input data for GHG savings calculations (*including preliminary emission factors to support ETS accounting*)
 - Information & system security measures to prevent fraud & error
 - Internal audits & quality assurance
 - Document control & records retention processes



* 3 months for economic operators other than primary producers which have 1 year (over calendar or economic year, as relevant) - see RED II Article 19(2)(l)

Likely routes for evidence to be checked



Notes:

- Any EC recognised scheme or national schemes
- i.e. audit back to source to confirm sustainability & GHG emissions data – note: Guarantees of Origin (GoO) are NOT acceptable
- Waste resulting from product consumption e.g. domestic waste (Pre-consumer waste is material diverted from the process stream during manufacturing and sent for disposal)
- GD0 Section 3.4.2 give information on specific criteria applicable
- Land use criteria N/A for wastes/residues from animals, fisheries & aquaculture, and microorganisms
- E.g. National Scheme where Regulator approves sustainability of specific biomass crops for specific uses



Example: Biomass Fuels

Type	Notes
Chipped fibre	<ul style="list-style-type: none"> Virgin is generally locally produced/sourced Waste is often shipped from overseas
Logs	Buy & chip Source of logs and any relevant national scheme?
Pellets	Generally large-scale economic operators, usually have a certification (e.g. FSC/ Enplus) Need to check: manufacturers credentials and scheme credentials for chain of custody and GHG elements; along with standard shipping documents
Energy crops	Need to check any energy crop regulation requirements for relevant country. In addition to timber, plants include: <ul style="list-style-type: none"> Miscanthus (Elephant) grass Switchgrass Reed canary grass
Waste materials	Need to check country's waste management licensing/handling requirements and whether material is agricultural (AW), Forestry waste (FW) or processing waste (PW); materials include: <ul style="list-style-type: none"> Woodland brash (FW) Straw (AW) Arboricultural residue (FW) Bagasse (sugarcane/ sorghum pulp) (PW) Construction etc offcuts (PW) Coffee grounds (PW) Sawdust (PW) Cashew nut shells (PW) Cashew nut oil (PW) <p>Some materials may also be classified as process by-products</p>



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Example: Mass Balance Records:

Record type	Information it should contain
Input and output records of biomass data and sustainability information	<ul style="list-style-type: none"> Invoice reference(s) Supplying/receiving company Transaction date Description of physical product biomass data refers to Volume of relevant physical input/output Related biomass/sustainability information (B&SI)
Conversion factor records	<ul style="list-style-type: none"> The input/output product it refers to. Value and units of the conversion factor. Validity of specific conversion factor(s) Calculation & supporting evidence determining the conversion factor
Periodic inventory of biomass data	<ul style="list-style-type: none"> Inventory of B&SI at start of the period <i>(clearly specifying if this is expressed in input-equivalents (before conversion) or output-equivalents (after conversion))</i> Volumes of inputs/outputs with identical B&SI for the period (volumes must align to stated input/output records) Conversion factor(s) used in the period Inventory of B&SI at the end of the period (including carbon intensity of the stock) <i>(clearly specifying if this is expressed in input-equivalents (before conversion) or output-equivalents (after conversion))</i> Purchase and sales invoices



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Checks to be made on the audit evidence (1):

The EU ETS Verifier needs to check:

- Any independent chain of custody audit carried out has examined evidence back to the primary source showing compliance at every stage, as well as having:
 - independent Auditor appropriately qualified, competent, accredited/approved AND have applied appropriate audit rules & standards
 - Scope and results of audit that are appropriate for ETS and can be relied upon as evidence e.g:
 - the report/statement, non-conformities identified, the level of assurance applied, inclusion of full chain of custody; appropriate evidence is referenced
- Evidence includes e.g.:

For Land	For Waste
<ul style="list-style-type: none"> • satellite image (e.g Google Maps/ Google Earth history) • aerial photos • maps, land register entries, land databases • site surveys • crop records • rural payment scheme forms • current membership of an Energy Crop or equivalent scheme • applicable sustainable forest management criteria • current & historical data for specified dates 	<ul style="list-style-type: none"> • Permits/certificates issued by regulators (e.g. waste transfer notes or end-of-waste certificates). • Process flow diagrams showing how material is created. • Information regarding material uses and its value in the market place

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Checks to be made on the audit evidence (2):

The EU ETS Verifier needs to check:

- Does compliance evidence for each different batch of fuel covers the full biomass chain; if not:
 - need additional audited information for the missing parts in the chain
- Is the Mass Balance complete, consistent and balances over the specified time period*
 - For solid biomass is it also on the same weight basis (wet vs dry) – is moisture content being established along the CoC?
- Does the amounts of fuel stated as biomass delivered/produced match reality at the Installation
- Does the 'Proof of sustainability' relate to appropriate batch(es) and is complete (e.g batches match to batch/delivery numbers) and the mass balance is correct
- Have GHG calculations been checked & confirmed as correct – evidence demonstrates checks on formulae, conversions, default value, supporting evidence etc

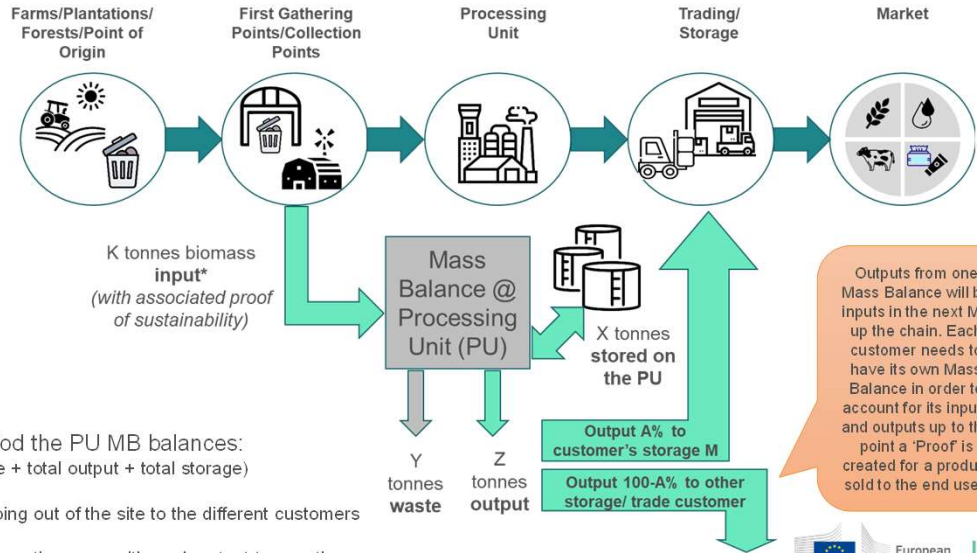


* 3 months for economic operators other than primary producers which have 1 year (over calendar or economic year, as relevant) - see RED II Article 19(2)(f)

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Mass Balance example (1):

* Note inputs could be different streams (eg waste, residue, primary biomass) These must be accounted for separately)

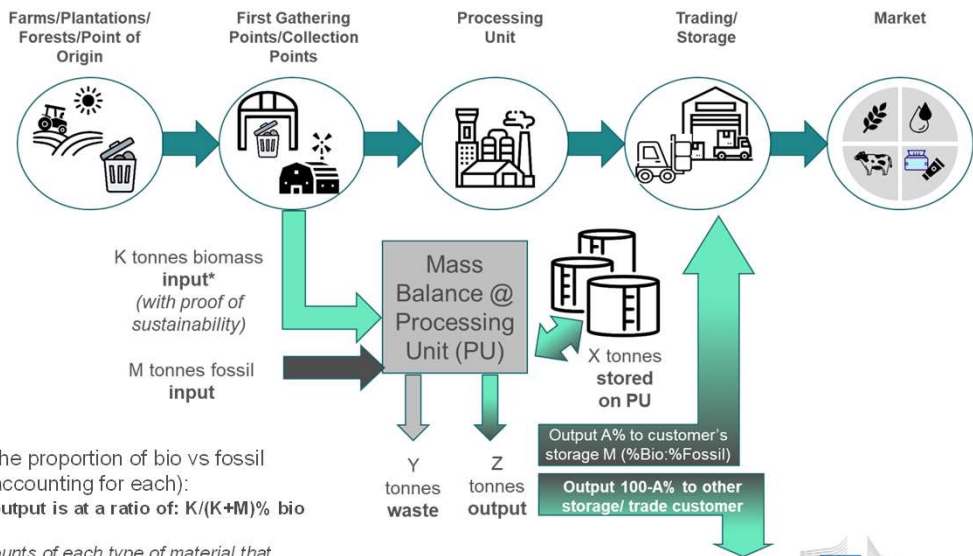


For each accounting period the PU MB balances:

- Total input (K) = Σ (total waste + total output + total storage)
- Total output = total amount going out of the site to the different customers
- Appropriate sustainability information goes with each output transaction (cannot mix 'information types' in any output batch)



Mass Balance example (2):



Also need to account for the proportion of bio vs fossil material (using separate accounting for each):
Z tonnes of bio output is at a ratio of: $K/(K+M)\%$ bio

(also need to account for amounts of each type of material that leaves as waste out and amounts that go into & out of storage at the processing site)



Examples of CoC systems and standards

Approved voluntary schemes and national certification schemes

The European Commission has so far formally recognized 14 voluntary schemes, namely

Voluntary scheme	Annual report 2021
Biomass 2144 voluntary scheme (2BSVs)	link
Bettee Biomass	link
Carbon Footprint and Carbon Certification (ISCC EU)	link
Combinable Crops & Sugar Beet Scheme (Red Tractor)	link
BioLink EU RED (RSB EU RED)	link
Round Table on Responsible Soy EU RED (RTRS EU RED)	link
Scottish Quality Farm Assured Combinable Crops (SQC)	link
Trade Assurance Scheme for Combinable Crops (TASCC)	link
Universal Feed Assurance Scheme (UFAS)	link
Sustainable Resources (SURE) voluntary scheme	link
Sustainable Biomass Program (SBP) (only for certification of solid biomass fuels, ligno-cellulosic material derived from forest and non-forest land and processing residues from forest and agriculture related industries outside forest and agricultural land)	
The European Commission has also recognised 1 national certification scheme	
National Certification Scheme	
Austrian Agricultural Certification Scheme (AACCS)	

Sources of reference information to help ETS Verifiers understand RED II CoC audits etc.

- CEN/TS 16214-2 : 2020 - Sustainability criteria for the production of biofuels and bioliquids for energy applications - Principles, criteria, indicators and verifiers - Part 2: Conformity assessment including chain of custody and mass balance
- International sustainability and carbon certification – ISCC EU 203 – Traceability and chain of custody
- NTA 8080-2 - Sustainably produced biomass for bioenergy and bio-based products – Part 2: Chain-of-custody requirements
- Roundtable on Sustainable Biomaterials -RSB-PRO-11-001-20-001 - EU RED Procedure for Traceability
- Roundtable on Responsible Soy Chain of Custody Standard Version 2.3



https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en

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Questions?



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Thank you for your attention

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