



EUROPEAN COMMISSION

DIRECTORATE-GENERAL

CLIMATE ACTION

Directorate B – Carbon Markets & Clean Mobility

CLIMA.B.2 – ETS (II): Implementation, Policy Support & ETS Registry

EU ETS Compliance Forum Training events

New developments in the EU ETS from 2024

Compliance Forum Training Events of 11 and 17 October 2024

This document comprises training material for competent authorities, national accreditation bodies and verifiers related to Monitoring, Reporting and Verification of greenhouse gas emissions and accreditation of verifiers under the EU Emission Trading System (EU ETS).

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1. LEGAL BACKGROUND

The legal basis for the Monitoring, Reporting and Verification (MRV) system is set in Directive 2003/87/EC. It was revised in 2023 by Directive (EU) 2023/958 on aviation and Directive (EU) 2023/959 for installations, maritime transport¹ and the “ETS2” for buildings, road transport and additional sectors. This has an impact on several Regulations, including Implementing Regulation (EU) 2018/2066 (Monitoring and Reporting Regulation, MRR) and Implementing Regulation (EU) 2018/2067 (Accreditation and Verification Regulation, AVR). The MRR was therefore revised twice, by [Commission Implementing Regulation \(EU\) 2023/2122 of 12 October 2023](#) (“batch 1”) and [Commission Implementing Regulation \(EU\) 2024/2493 of 23 September 2024](#) (“batch 2”). The changes include

- MRV rules for municipal waste incineration installations,
- MRV rules for the “ETS2” (EU ETS for buildings, road transport and other sectors),
- Extended rules for “zero-rating” of CO₂ emissions not only for biomass meeting the sustainability and GHG savings criteria of the Renewable Energy Directive (RED II), but also for RFNBOs², RCFs³ and SLCFs⁴.
- Extended rules for the transfer and transport of CO₂ and specific rules for CCU (Carbon Capture and Use) with regards to products in which CO₂ is permanently chemically bound;
- Introduction of the Monitoring Rules for non-CO₂ effects of aviation;
- Some changes for aircraft operators with regard to attributing fuels to flights and to fuels eligible for support under EU ETS Directive Article 3c(6).

Also the AVR was updated. [Commission Implementing Regulation \(EU\) 2024/1321 of 8 May 2024](#) introduced e.g. the following changes:

- Verifier’s role in checking the implementation of energy efficiency recommendations (for free allocation rules)
- Verification & accreditation in “ETS2”
- Improvement of existing AVR requirements
 - Amending one criterion for waiving site visits
 - Allowing virtual site visits for aviation under certain conditions
 - Clarification of the verifier’s role in checking compliance with biomass fuels or aviation fuels with RED criteria

Another update of the AVR is expected soon, covering e.g. verification of non-CO₂ effects for aviation, the new zero-rating rules, and some new elements relevant for the free allocation to installations.

¹ The MRV rules for shipping companies performing maritime transport activities now included in the EU ETS are provided by separate legislation (Regulation (EU) 2015/757 of the European Parliament and of the Council of 29 April 2015 on the monitoring, reporting and verification of carbon dioxide emissions from maritime transport, and amending Directive 2009/16/EC, <http://data.europa.eu/eli/reg/2015/757/2024-01-01>

Therefore, maritime transport was only briefly covered during these training events.

² Renewable Fuels of Non-Biological Origin

³ Recycled Carbon Fuels

⁴ Sustainable Low Carbon Fuels

2. OBJECTIVE

The M&R training events of 11 and 17 October 2024 aimed at informing competent authorities (CAs), National Accreditation Bodies (NABs) and verifiers on new and upcoming legislative developments and new areas that will affect their work:

- Providing an overview of legislative developments and plans for guidance;
- Providing an overview of MRV for municipal waste incinerations and ETS2;
- Providing information on plans for the monitoring of non-CO₂ effects of aviation;
- Explaining the rules for zero-rating of biomass, RFNBOs, RCFs, SLCFs, and in particular on the functioning of RED II certification schemes and the “Union Database”;
- Providing an overview of new developments in aviation and maritime transport.

Target audience: Representatives from CAs, NABs and verifiers. For the second day which focussed on requirements, also certification bodies of RED II schemes were invited.

Please note that the training events took place before the relevant guidance documents were updated. As some changes in interpretation of the legal texts may result from further discussions during the development of the guidance, the guidance documents should be considered the more reliable source of information. Therefore, please check for the latest version in the Commission’s website

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

Check in particular for

- MRR Guidance documents 1, 2 and 3
- AVR Explanatory Guidance Document I

3. SET-UP OF THE TRAINING EVENT

3.1 Agenda of the training event of 11 October 2024

EU ETS COMPLIANCE FORUM Training Event - Day 1

Key changes in phase 4 on MRVA rules incl. Batch 2 MRR and AVR

Friday, 11 October 2024

Location: ONLINE

*MR and AV aspects in all the timeslots

10:00 – 10:15	Opening, welcome and introduction	DG CLIMA
10:15 – 11:15	Overview of key phase 4 changes in EU ETS *including CCS, CCU and CO ₂ transport *including biomass, RFNBO/RCF and SLCF	UBA/SQ
11:15 - 11:30	Break	
11:30 – 12:00	Overview of key phase 4 changes in EU ETS *continued	UBA/SQ
12:00 – 12:30	ETS2 impact on ETS1 MRV	UBA/SQ
12:30 – 14:00	Lunch break	
14:00 – 14:30	New rules on allocation and impact on ALC MRVA	UBA/SQ
14:30 – 15:00	MRVA in maritime sector	DG CLIMA
15:00 – 15:15	Break	
15:15 – 16:00	MRV of non-CO ₂ aviation effects	DG CLIMA
16:00 – 16:30	New rules on monitoring and reporting of alter- native and eligible aviation fuels	UBA/SQ/DG CLIMA
16:30 – 16:45	Wrap up and close of training	DG CLIMA

3.2 Agenda of the training event of 17 October 2024

EU ETS COMPLIANCE FORUM Training Event – Day 2

New MRV rules on biomass, RFNBO/RCF and SLCF in EU ETS

Thursday, 17 October 2024

Location: ONLINE

* MR and AV aspects in all the timeslots

* All sessions include a possibility for Questions and answers at the end.

10:00 - 10:15	Opening, welcome and introduction	DG CLIMA
10:15 – 11:15	New MRR requirements for biomass, RFNBO/RCF and SLCF	Umweltbundesamt
11:15 - 11:30	Break	
11:30 - 12:15	RED II – Certification systems: Requirements, recognition of national and voluntary schemes	DG ENER
12:15 - 13:30	Lunch break	
13:30 - 14:30	New rules on biomass, RFNBO/RCF and SLCF - verification & accreditation	SQ Consult
14:30 - 15:15	Demonstrating compliance with REDII criteria in the Union Database (UDB)	DG ENER
15:15 - 15:30	Break	
15.30 – 16.15	Case studies on new rules - Checking process and procedures - Common challenges - Best practices on demonstrating compliance with RED criteria	MS CAs
16.15 - 16:30	Wrap up and close of training	DG CLIMA

Annex: Presentations

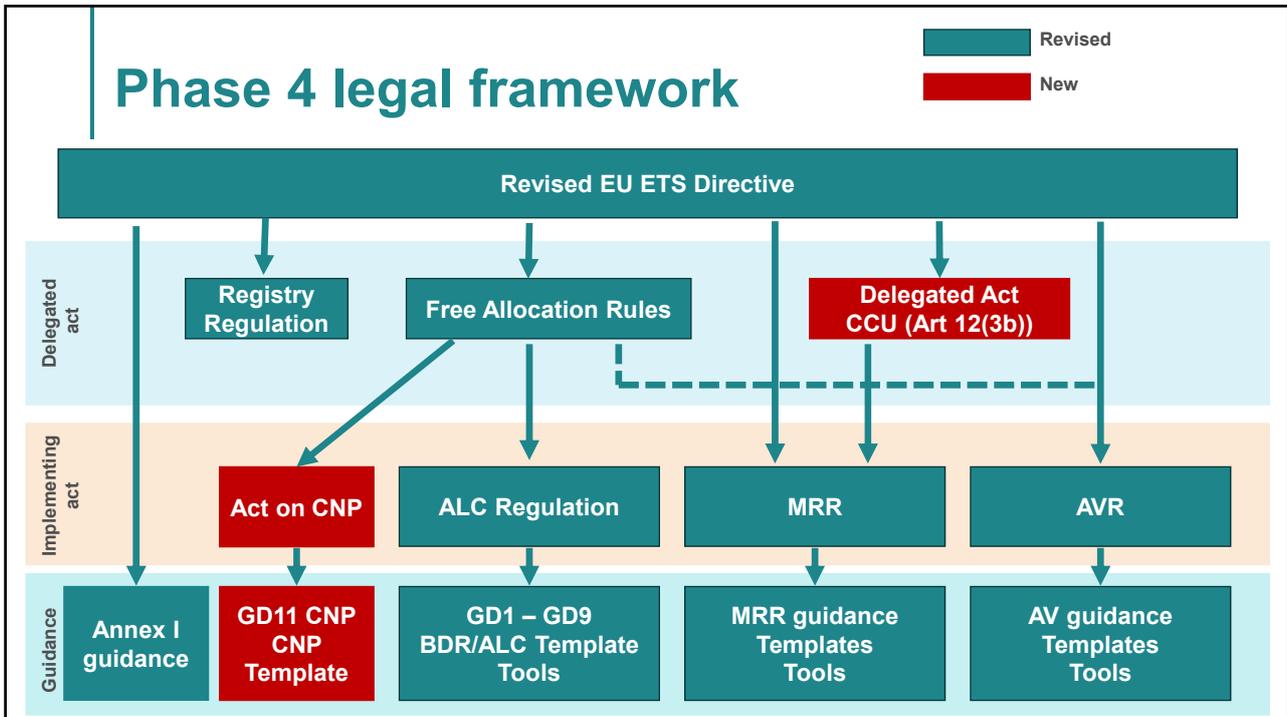


EU ETS Monitoring and Reporting – CF Training event

Training Event on EU ETS Monitoring & Reporting

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11 October 2024



Overview of MRR revisions in batches

Batch 1

- Monitoring and reporting rules for municipal waste incineration installations
- Monitoring and reporting for ETS 2
- Improvement of existing MRR rules
 - Increase in reference price in Article 18 MRR
 - Changes in intervals of improvement reports
 - Clarification of requirements in Annex IV MRR
 - Revisions in Article 39/48 MRR on biomass mass balance
 - Revisions in Article 43 MRR to avoid double counting
- Amendments in MRR rules on aviation
 - Specific provisions on biofuels and eligible aviation fuels and alignment with CORSIA³

Batch 2

- Monitoring and reporting of RFNBO/RCF and Synthetic Low Carbon Fuels
- MRV of transport of CO₂ and CCU
- Amendments in Article 49 and Annex IV MRR to align with new definition of emissions
- Clarification of biomass mass balance rules and revisions in Article 43 MRR for CEMS
- Specific rules on biofuels, alternative aviation fuels and eligible aviation fuels
- Monitoring and reporting of non-CO₂ aviation effects



Overview of AVR revisions in batches

Batch 1

- Verifier's role in checking the implementation of energy efficiency recommendations
- Verification & accreditation in ETS 2
- Alignment of Annex I AVR on Accreditation scope with revised Annex I Directive
- Improvement of existing AVR requirements
 - Amending one criterion for waiving site visits
 - Allowing virtual site visits for aviation under conditions
 - Clarification verifier's role in checking compliance biomass fuels/ aviation fuels with RED criteria
 - Alignment with MRR
 - Minor clarifications⁴

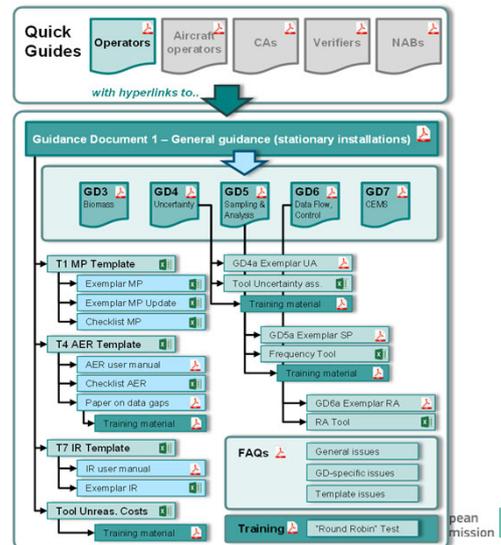
Batch 2

- Verifier's role in verifying achievement of milestones and targets laid down in CNP
- Alignment with MRR
 - Verifier's checks related to RFNBO/RCF and SLCF
 - Verifier's checks related to rules on alternative aviation fuels and eligible aviation fuels
 - Verifier checks related to transport of CO₂ and mixed source streams
- Verifier's checks related to CCU
- Verification of non-CO₂ aviation effects
- Minor improvement of existing AVR rules



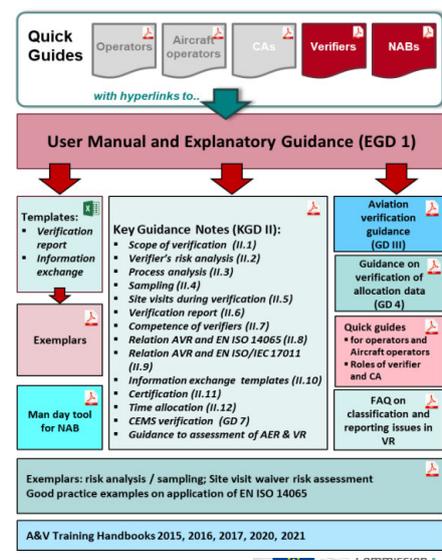
Update of MRR guidance

- New guidance on ETS2 & templates
- Update of existing guidance
 - ✓ How to deal with MWI specific issues
 - ✓ New rules on biomass and other zero-rating
 - ✓ Explanation of transport of CO₂, (permanent) CCU
 - ✓ Minor issues such as IR intervals, references
- Update of templates to new rules
 - ✓ MP templates (minor changes) and major updates later (e.g. transport of CO₂)
 - ✓ AER template for installations / aircraft operators
 - ✓ IR templates (minor issues in guidance)
- Update of tools and new trainings to inform stakeholders (like today)



Update of AV guidance

- New guidance on ETS2 verification & VR template
- Update of guidance to new rules: e.g.
 - ✓ How to deal with MWI specific issues
 - ✓ Role of verifier in assessing CCS/CCU rules
 - ✓ Role of verifier in assessing transport of CO₂ issues
 - ✓ Amendment of existing AVR rules (e.g. virtual site visits)
 - ✓ Update VR template & guidance
 - ✓ GD III on aviation regarding new rules (e.g. CORSIA)
- Update guidance & templates on allocation
 - ✓ Guidance Document 4 on conditionality
 - ✓ VR templates on allocation
 - ✓ Information exchange templates to allow reporting on new issues
- Update tools and new trainings to inform stakeholders



MWI

Municipal Waste Incineration

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General aspects

- Annex I of EU ETS Directive: Inclusion of Installations for Municipal Waste Incineration (MWI) $>20\text{MW}_{\text{th}}$ for **MRV only as of 2024**
 - GD0: **Guidance on scope of the EU ETS Directive** (Annex I) discusses installation boundary matters (currently under minor revision, but not related to MWI)
 - MRR Art. 68(4)(c): **“Member States shall submit the verified annual emissions report of each installation for the incineration of municipal waste as referred to in Annex I to Directive 2003/87/EC to the Commission by 30 April of each year....”**
- EU ETS Directive Art. 30(7): **Revision clause for July 2026**
→ COM to assess the feasibility to include MWI from 2028 onwards

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Development of MWI rules in MRR

- MRR rules derived from:
 - Fact that most MWIs already apply CEMS for other air pollutants (IED purposes)
 - Experience from SE and DK having opted-in MWI previously
 - Fact that other types of (industrial) wastes already covered by EU ETS (cement, steel, (non-)ferrous metals, etc.)
 - Feedback received from TWG members on concept note and draft MRR updates
- **Main conclusion:** the existing tier-based system in the MRR with the flexibilities for derogation (e.g. unreasonable costs) already provide sufficiently robust yet cost-efficient framework for monitoring

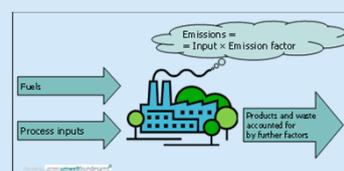
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Monitoring approaches

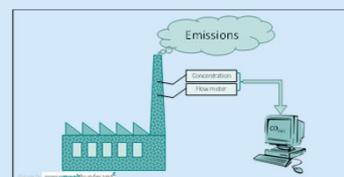
• Calculation-based approach

- **NCV, EF:**
 - **Category A:** May apply Tier 2a default values
 - **Category B/C:** Tier 3 Sampling & Analysis (e.g. EN 14899, CEN/TR 15310, ISO 21645:202, etc.)
- **Zero-rated biomass fraction:**
 - RED II criteria do not apply to municipal solid waste
 - Biomass fraction still needs to be determined (see next slide)



• Measurement-based approach (CEMS)

- Concentration (applied from IED, but maybe not for CO₂)
- Volumetric flow (maybe not yet applied)
- Due to fluctuating flue gas, highest tier might be difficult to achieve → unreasonable costs



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Determination of the biomass fraction

• Calculation-based approach

- Sampling & Analysis (Tier 3) or default value, as required

• Measurement-based approach (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 necessarily continuous measurement)
Appropriate sampling plan (Article 33) to be put in place to ensure representativeness

Flue gas for the purpose of Article 43(4) ²³	Every 50 000 tonnes of total CO ₂ , but at least once a month ²³
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b) The “**Balance method**”, based on five mass balances and one energy balance. Each balance describes a certain waste characteristic (e.g. carbon content, heating value)

c) **Estimation methods** published by the Commission → none published yet

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BF and CEMS (special case: biogas)

- Article 39(3): biomass fraction of natural gas from the grid **shall not be based on analysis or estimation methods**

- Article 39(4): **using purchase records** of biogas of equivalent energy content (RED II compliance, no double counting)

- **New** Art. 43(4b):

*„Where the method proposed by the operator for the determination of the zero-rated biomass fraction **involves continuous sampling** from the flue gas stream and the installation consumes natural gas from the grid, the operator shall determine the physical CO₂ amount of the biogas used in accordance with Articles 32 to 35 of this Regulation and **deduct the respective CO₂ amount** from the zero-rated CO₂ determined in accordance with paragraph 4a of this Article.”*

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Verification of MWI emissions

- Same rules apply to the verification of MWI's emission reports
- There is however practical impact on verification
 - ✓ MWI specific issues such as sampling and analysis of municipal waste are factors that need to be taken into account when determining time allocation
 - ✓ Inherent and control risks may be higher if data flow and monitoring is complex
 - ✓ Same type of checks as for other combustion installation (data verification, checks on methodologies, analytical procedures) but the MWI specific issues may result in:
 - ❖ checks on whether source stream is municipal waste (based on approved MP)
 - ❖ where installations are covered by EU ETS and have MWI, checks on which MRV processes are covered only for MRV processes (there could be two MPs).
 - ❖ similar checks on calculation based and CEMS methodology but please note the specific requirements in the MRR

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Zero-rating (biomass, alternative fuels)

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What has changed?

- Guidance Document 3 was published in October 2022; Training material updated in May 2023
- Since then, the following happened:
 - EU ETS Directive was amended:
 - Annex I introduces “95% sustainable biomass” criterion
 - Article 14 and Annex IV – legal basis for RED II criteria for zero-rating, RFNBO/RCFs included
 - Aviation: Art. 3c(6): support for Sustainable Aviation Fuels, including synthetic low carbon fuels (SLCFs)
 - RED II was amended:
 - Updated sustainability & GHG savings criteria for biomass and RFNBO/RCFs
 - Strengthened Union Database (UDB)
- All changes will be reflected in the guidance documents to be updated

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Annex I of the EU ETS Directive

- In the past installations using biomass were excluded from the EU ETS, but it was not clear if the biomass would have to comply with the RED II criteria
- Now clear rule: If more than 95% of installation’s emissions over the last relevant 5-years period were from biomass that complies with the sustainability and GHG savings criteria, then the installation is excluded [for the next 5-year period].
- Details: **Guidance Document No.0** “Guidance on the interpretation of Annex I for installations (scope of the EU ETS Directive)”
https://climate.ec.europa.eu/document/edc93136-82a0-482c-bf47-39ecaf13b318_en

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Zero-rating: Problem definition

Mixed fuels may consist of the following fractions:

- Fossil → Zero-rated
- Biomass → Not zero-rated
- Renewable Fuels of Non-Biological Origin (RFNBOs)
Recycled Carbon Fuels (RCFs) → Zero-rated
→ Not zero-rated
- Synthetic low-carbon fuels (SLCFs) → Zero-rated
→ Not zero-rated

Zero-rating is a tool for avoiding double counting of CO₂ emissions
However, for avoiding unintended incentives (deforestation etc.), some criteria must be met

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Zero-rating – Example: Biomass

Memo-Item to be reported

$$\text{CO}_2 \text{ entering the atmosphere} = \text{FQ} \times \text{EF}_{\text{pre}}$$

$$\text{Fossil CO}_2 = \text{FQ} \times \text{EF}_{\text{pre}} \times \text{Fossil Fraction}$$

$$\text{CO}_2 \text{ from biofuels} = \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}$$

Fossil CO₂

CO₂ from non-certified biofuels
= $\text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{non-zero}}$

CO₂ from Biofuels certified to comply with RED II
= $\text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{zero-rated}}$

CO₂ for which allowances have to be surrendered

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times (\text{FF} + \text{BF}_{\text{non-zero}})$$

Zero-rated biomass CO₂

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{zero-rated}}$$

EF_{pre} ... Preliminary Emission Factor

FQ ... Fuel Quantity

BF ... Biomass fraction



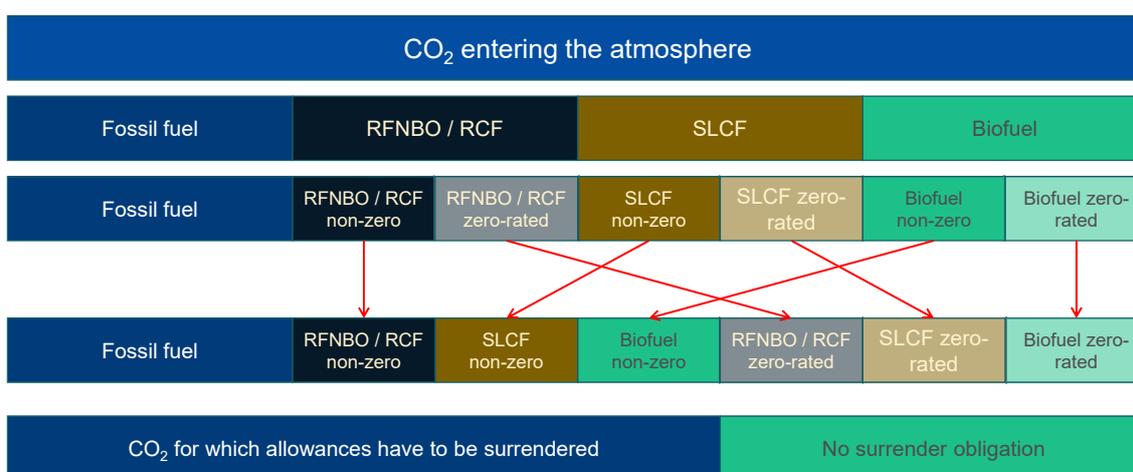
Extended zero-rating

- Same principles as for biomass have now been introduced in the MRR also for:
 - **‘Renewable fuels of non-biological origin’ [RFNBO]** means liquid and gaseous fuels the energy content of which is derived from renewable sources other than biomass”.
 - **‘Recycled carbon fuels’ [RCF]** means liquid and gaseous fuels that are produced from liquid or solid waste streams of non-renewable origin which are not suitable for material recovery in accordance with Article 4 of Directive 2008/98/EC or from waste processing gas and exhaust gas of non-renewable origin which are produced as an unavoidable and unintentional consequence of the production process in industrial installations.
 - **‘Synthetic low-carbon fuels’ [SLCF]** means gaseous and liquid fuels, the energy content of which is derived from low-carbon hydrogen as defined in Article 2, point (13) of Directive (EU) 2024/1788 [Gas Market Directive], which meet the greenhouse gas emission reduction threshold of 70 % compared to the fossil fuel comparator [..]”
- However, criteria that have to be met differ in detail.

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Theoretically most complex mixture of fuels



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Updates in MRR for biomass and alternative fuels

- Definitions
- Calculation formulae updated, definition of Memo-Items to be reported for transparency
- Rules on how to determine all fuel fractions
 - Determination of zero-rated fractions is voluntary
 - Often the total fraction of a type is identical to the zero-rated fraction
 - The zero-rated fraction is usually determined by having PoS (Proof of Sustainability) from a RED II certification scheme
 - For biomass: Analyses are possible, for RFNBO/RCF/SLCF not
- Rules are given for all monitoring methodologies and for being conservative
 - Standard method, mass balance, CEMS, transfer of CO₂ and inherent CO₂

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Changes in the RED II

- Some changes in Art. 29 (sustainability & GHG savings criteria)
 - For MRR: GHG savings threshold also for installations starting *before* 2021
- RFNBO / RCF: GHG savings threshold included
- Union Database (UDB) strengthened:
 - Mandatory for all recognised certification schemes
 - Ensures that there is no separate handling of GoO and PoS
 - Enables transboundary biogas trading (the whole natural gas grid is one single mass balance)
 - Therefore, MRR explicitly allows (recommends) that proof of sustainability should be taken from UDB

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Where to find more information?

- Guidance documents, including GD3 on biomass, will be updated soon
- 2nd Compliance Forum Training event on **17 October 2024** – It will be fully dedicated to:

**New MRV rules on biomass, RFNBO/RCF and SLCF
in the EU ETS**

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ETS2

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ETS2

- Main elements introduced in batch 1 (Art. 75a ff)
- Batch 2:
 - Minor changes to ensure full consistency (**RFNBO/RCF and biomass**), etc.
 - Revisions in Article 75e and 75n MRR on **categorisation of regulated entities**
 - Clarify that categories are **before application of the scope factor** (unless RE can provide evidence that the scope factor is representative)
 - Definition of **ETS2 final consumer** added (< 1 t CO₂)
 - Clarification that **Annex Xa/Xb** reports are part of AER and not separate
- **Impact of ETS2 on ETS1** → see next presentation
- MRVA of ETS2 → dedicated **ETS2 training event on 14 Nov 2024**

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CCS & CCU

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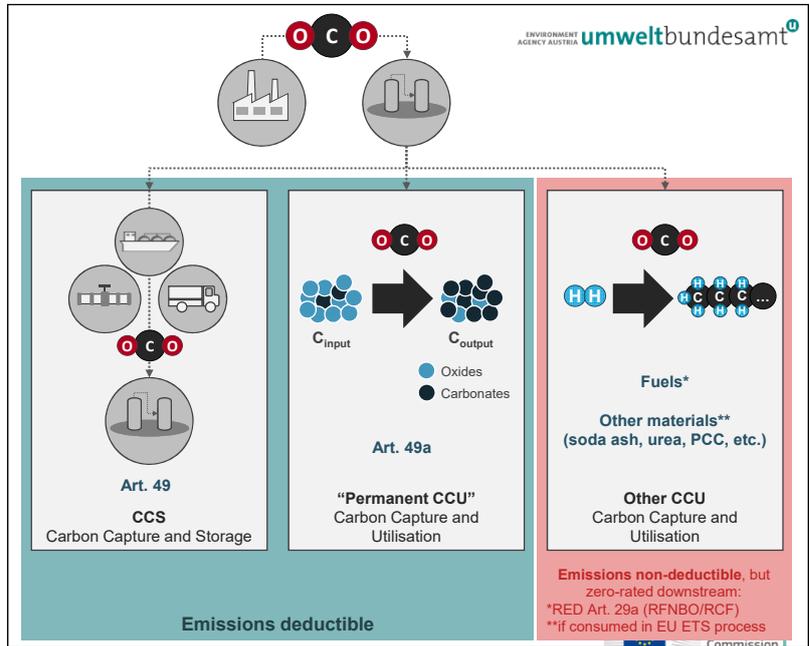


CCS & CCU

Most relevant MRR amendments:

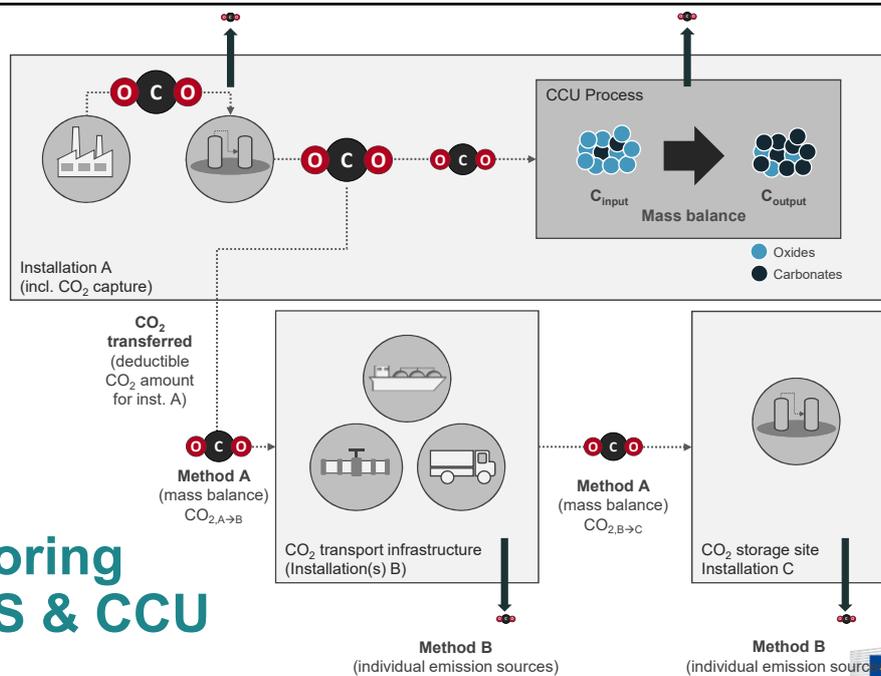
- Added definitions to Article 3
- Annex I, Annex X
- CCS: Art. 49, Annex II/V (tiers), Annex IV (21 to 23)
- CCU: Art. 49a
- Annex IV (lime, soda ash, etc.) due to revised definition of 'emissions' in Art. 3(b) Directive

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Monitoring of CCS & CCU

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Monitoring of CCS

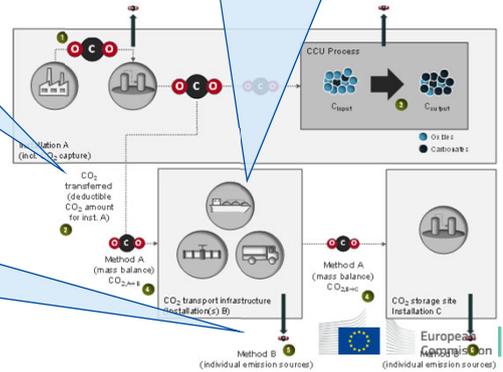
NEW: CO₂ transport infrastructure
(now includes all modes of CO₂ transport, not only pipelines)

NEW: Capture order: a “pro-rata” approach

- Installation A emits 100 000 t CO₂
- 50% stems from zero-rated biomass
- 80 000 t CO₂ are captured

→ only 40 000 t CO₂ can be deducted, 10 000 EUA remain to be surrendered

NEW Special consideration for re-emission: once transferred to another installation, **all** CO₂ re-emitted has to be reported as if it were fossil (regardless if from biomass, air capture, non-ETS sources)



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Monitoring of CCS

$$\text{Emissions (CO}_2\text{ transport infrastructure or storage site) =} \\ \text{Emissions from installation e.g. booster station, liquefaction/gasification, etc.)} \\ + \\ \text{Emissions from venting/leakage/fugitive emissions (Method A or Method B)}$$

Method A (mass balance)

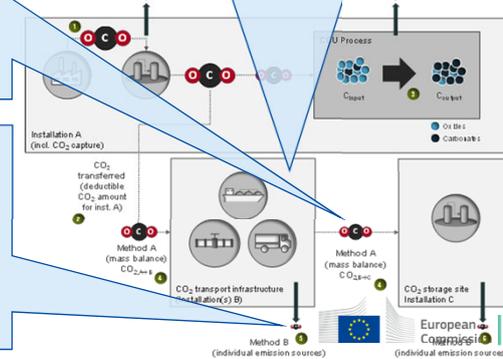
- Using CEMS, **OR**
- **NEW** CO₂ transfer monitored like any other source stream (e.g. flow of natural gas or metering of batches)

“CO₂ in transit”: Amounts not stored in the same year Y, but by 31 Jan Y+1 can still be deducted

Method B (individual emission sources)

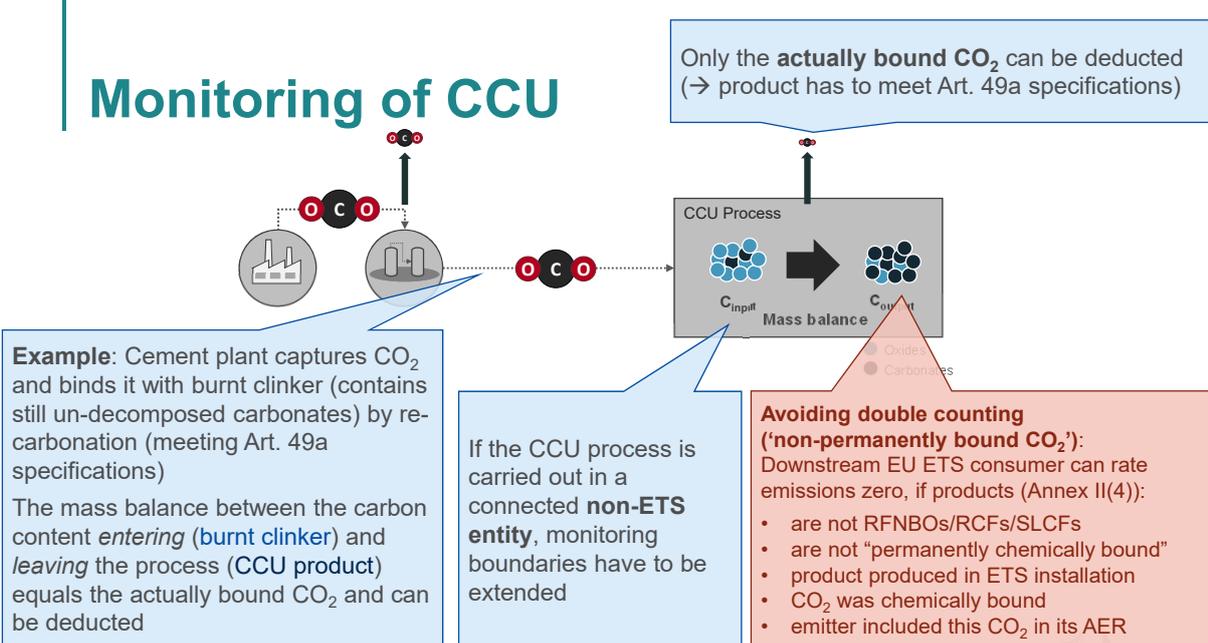
- **NEW** preferred (lower uncertainty expected), unless operator demonstrates unreasonable costs or Method A to lead to lower uncertainty
- Method A required for corroboration (lower tiers)

→ ensure no major leakages etc. go unnoticed



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Monitoring of CCU



Verification related to transport of CO₂

- The verifier will follow the same requirements as for any EU ETS verification
- Specific checks are needed on the data related to the transfer of CO₂, for example:
 - ✓ checks on correct application of monitoring methodology listed in the approved MP
 - ✓ checks on the quantity of CO₂ transferred and received between installations or CO₂ transport infrastructure
 - ✓ check on whether CO₂ is subtracted correctly in particular if the CO₂ transferred results from materials or fuels containing zero-rated fuels
 - ✓ check on whether CO₂ in transit is included in the reported emissions of the CO₂ transport infrastructure

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Verification related to CCU

- The verifier will follow the same requirements as for any EU ETS verification
- Specific checks are needed on for example:
 - ✓ whether the CO₂ is permanently chemically bound in a product listed in the CCU delegated Act
 - ✓ the correct application of the monitoring methodology listed in the approved MP
 - ✓ the quantity of CO₂ bound in the product with other relevant information sources within the installation
 - ✓ plausibility checks on the relevant data
 - ✓ correct subtraction of the CO₂ in particular if the CO₂ results from materials or fuels pertaining to a fraction of zero-rated carbon

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Thank you for your attention

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EU ETS Monitoring and Reporting – CF Training event

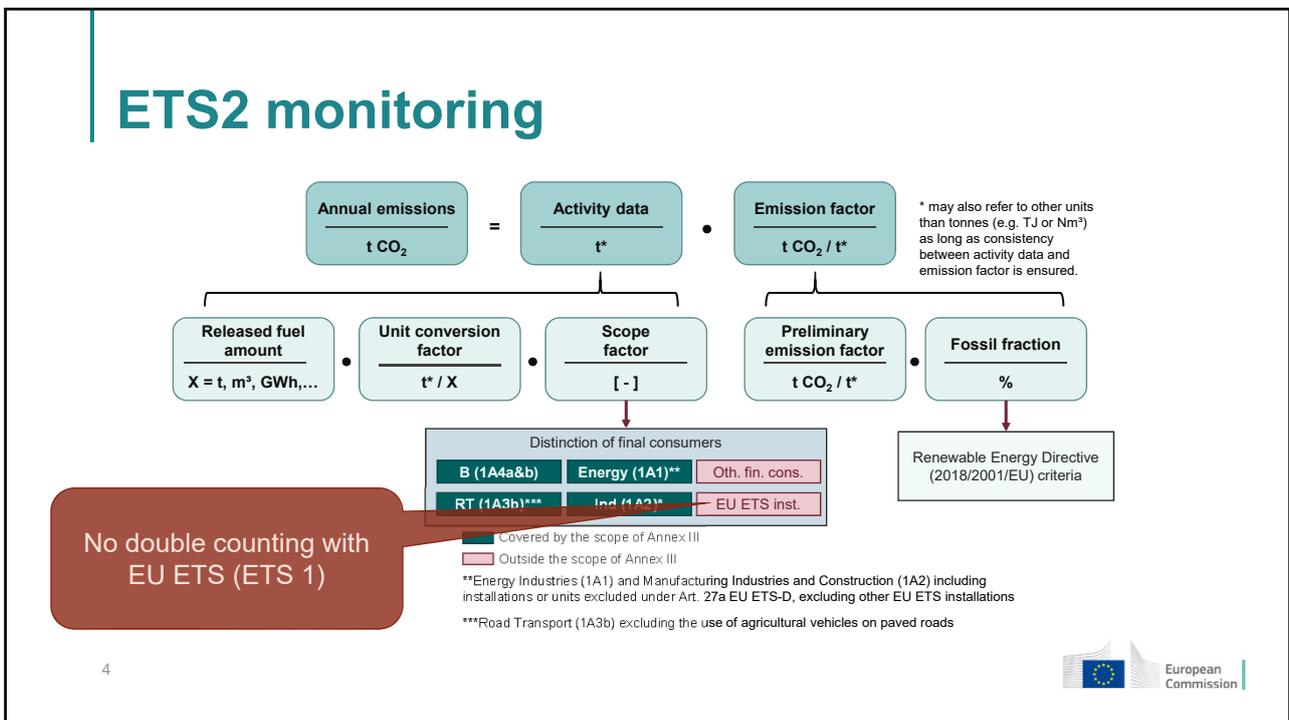
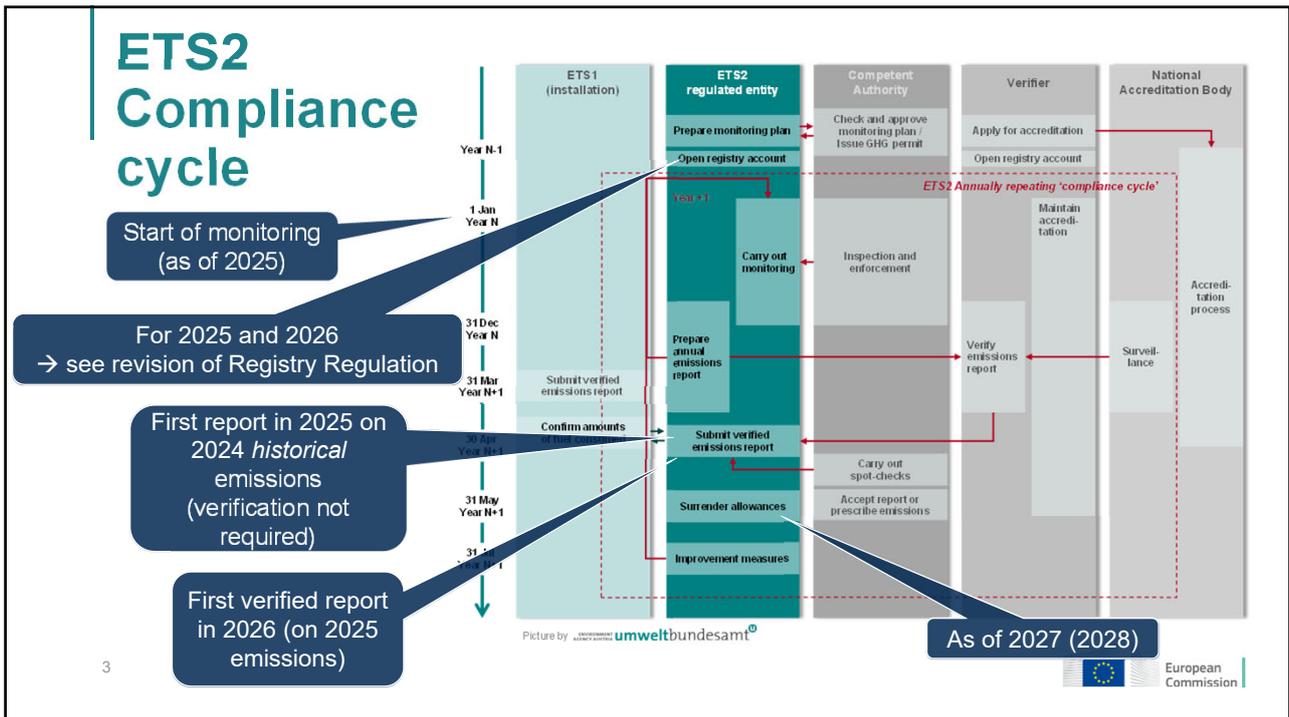
Training Event on EU ETS ETS2 impacts on ETS1

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11 October 2024

ETS2 General aspects

- **Separate system from existing ETS**, however building on ETS1 rules
- **Upstream system, regulating the fuel suppliers and not the end-consumers**: What triggers the compliance obligation is the release on the market of fuels for combustion in the sectors concerned (Annex III)
- **Emissions** will be determined based on the fuel quantities put on the market



Reporting requirements

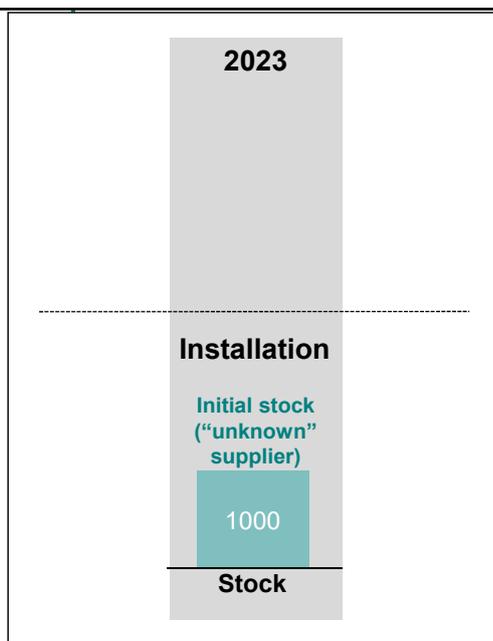
- **Art. 75v(2): ETS1 operators** shall submit information in **Annex Xa** (as part of AER) for each fuel supplier (whether an ETS2 regulated entity or not)
→ MS may require to make available to ETS2 entity (e.g. fuel supplier) before 31 March
- **Annex Xa:** for each supplier amount of fuel acquired, used for Annex I activities, etc.
 - Will be straight-forward for e.g. natural gas, but can be more demanding where several suppliers and stocks are relevant (see example on next slide)
- **Annex I(10):** requires corresponding procedure in the MP, incl. how to separate actual consumption from 'fuel put on stock' and 'fuel exported, etc.



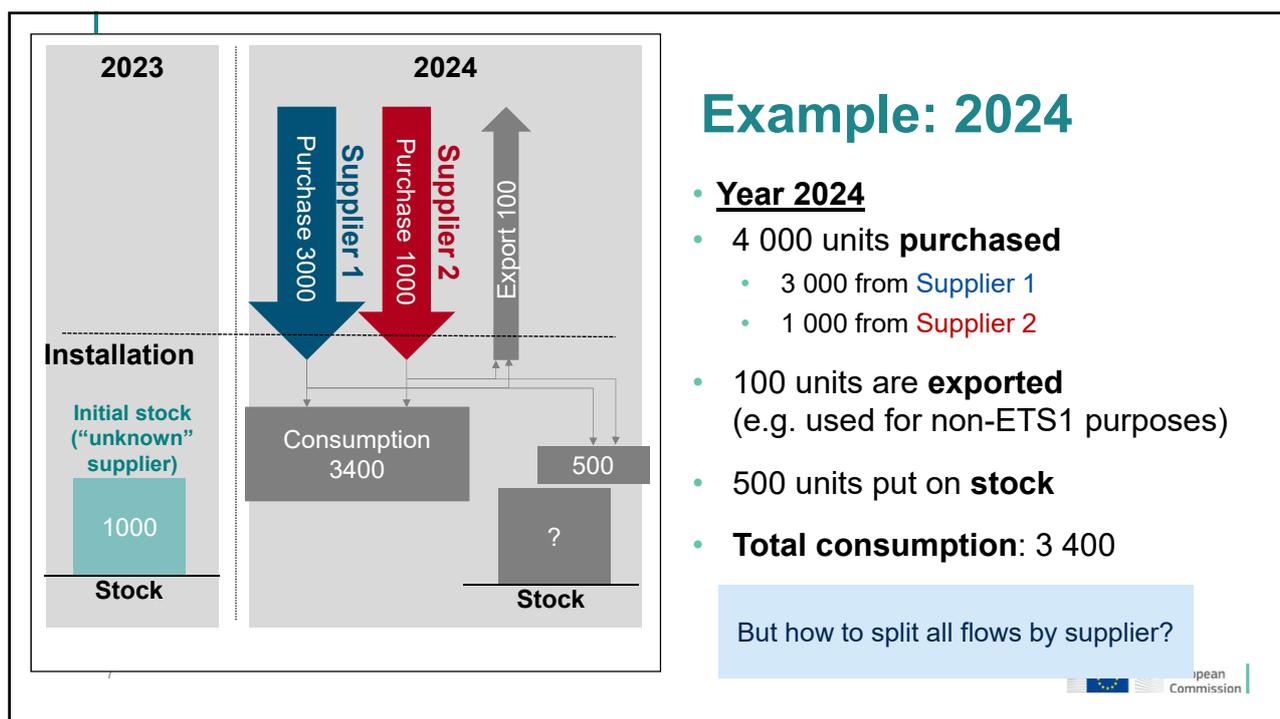
Example: Starting point in 2023

Year 2023

- A “starting point” is needed
→ Period before ETS2 starts with reporting on historic emissions in 2024
- Everything **before 2023 not part of ETS2**
- Example: 1 000 units on stock (End 2023)
 - By default from a **non-defined / unknown supplier**

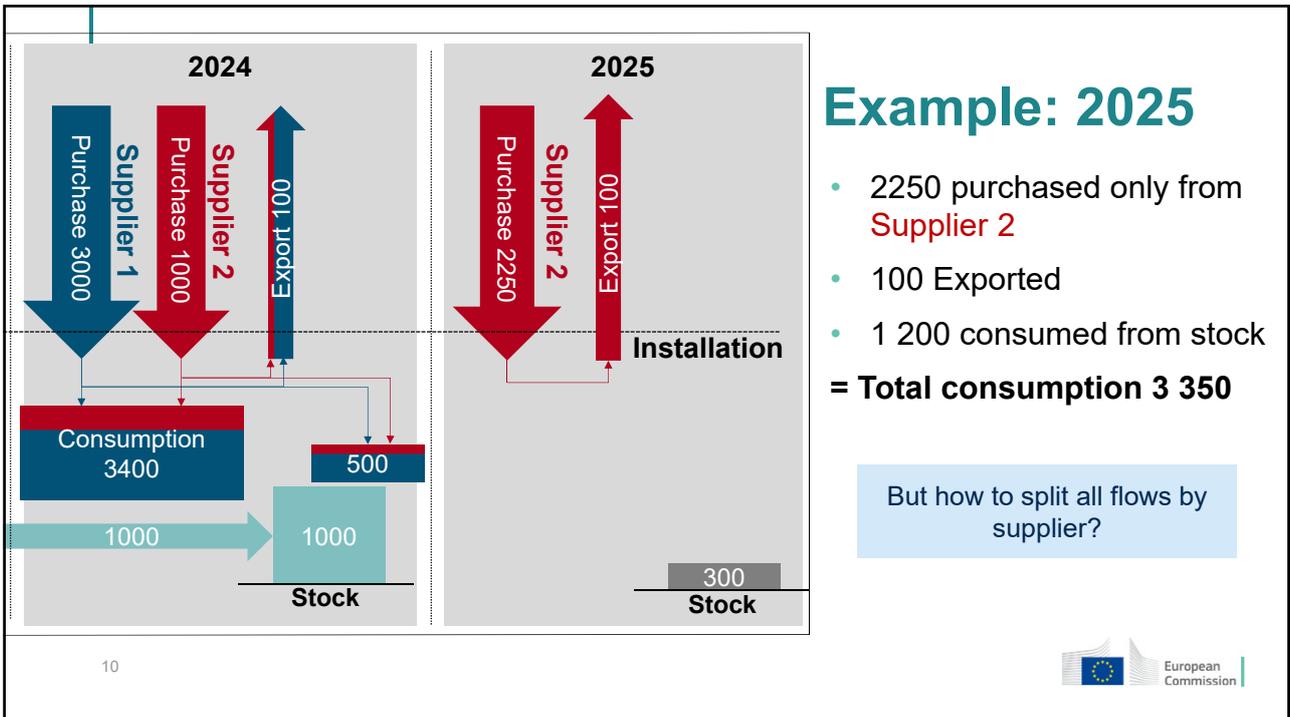
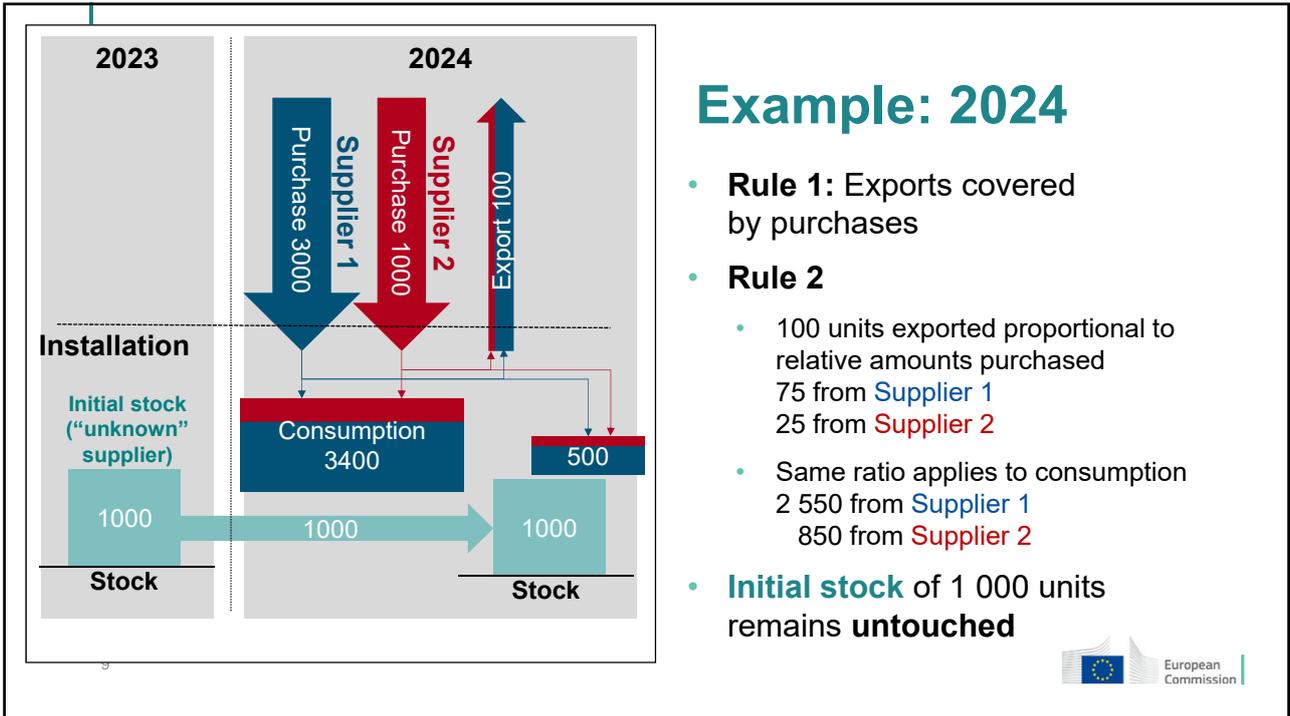


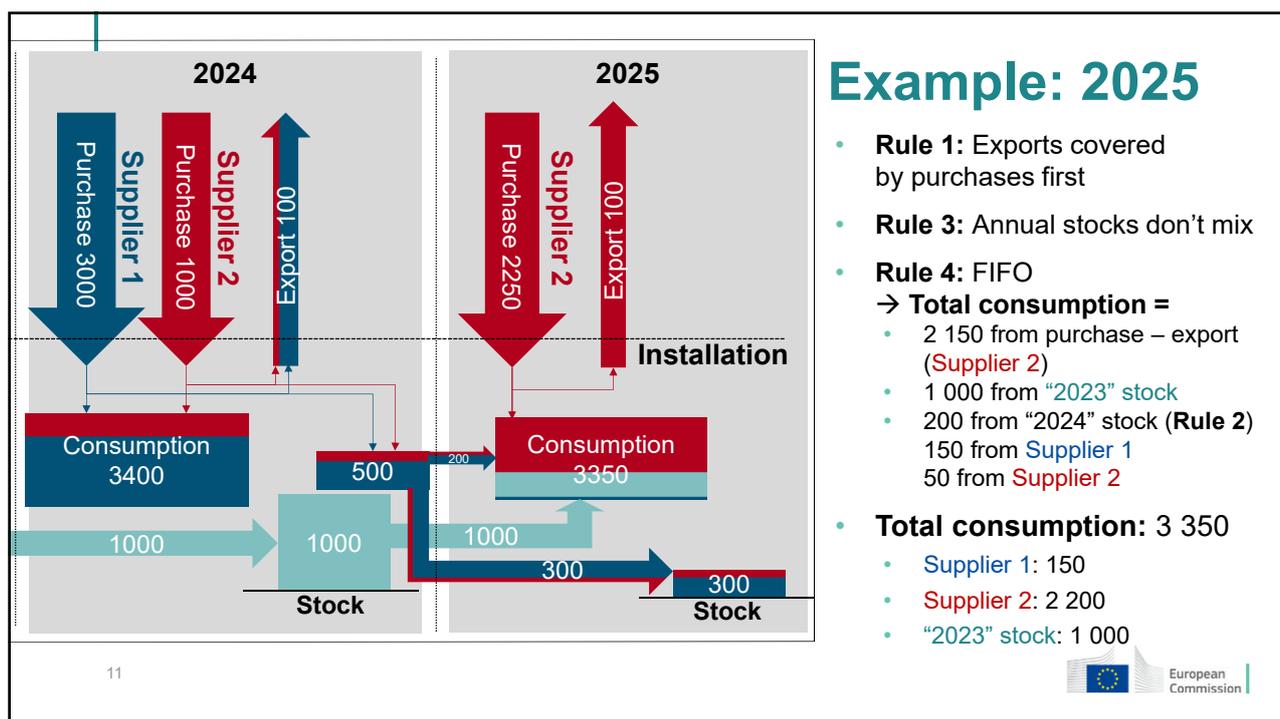
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Accounting rules

- Example applies the following annual accounting rules:
 - **Rule 1:** Exports covered by purchase only (if purchase > export)
 - **Rule 2:** Shares purchased by supplier = Shares to consumption/stock/export
 - **Rule 3:** Annual stocks do not mix
 - **Rule 4:** Consumption from stock: First in – First out (FIFO) principle





Next steps

- **GD1** will include this example on Annex Xa reporting
- Update to the **ETS1 AER template**: include a tool for the Annex Xa calculations
- Dedicated training on ‘CAs approving ETS2 MPs’ on **14 Nov 2024**

ETS 2

Checks by ETS 1 verifier on Annex Xa information

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Role of ETS 1 verifier

ETS 1 operator includes Annex Xa information in emission report: e.g.

- Name of fuel supplier
- Amounts of fuel acquired from fuel supplier
- Amounts used in ETS 1 activities

Regulated entity uses Annex Xa information to determine what amounts it can subtract from total amounts of fuel

Regulated entity includes Annex Xb information in AER (e.g. fuel amounts sold to each buyer, amounts used in ETS 1 activities, parties to whom fuel is sold, and end consumers)

ETS 1 verifier performs checks on Annex Xa information to ensure confidence in information

- Emissions associated with the fuel amounts released for consumption in ETS2 sectors
- Avoiding double counting between ETS1/ ETS2

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Checks by ETS1 verifier on Annex Xa info

The verifier checks the following:

- Completeness of Annex Xa information and compliance with Annex Xa
- Performs cross checks between Annex Xa information and information in procurement system (fuel supplier contracts, delivery notes, fuel invoices)
- Checks the methodology in the approved MP on how to split the fuel amounts between suppliers, if fuels are not used in the same reporting year
- Checks whether the amounts of fuels used from the supplier do not exceed the amount acquired from that supplier while taking into account the amounts stored in stock according to the approved MP methodology

- **The verifier must report the checks carried out and any findings in the verification report**
- **When Annex Xa information is shared with the regulated entity, the ETS 1 operator must also share issues reported in the VR concerning Annex Xa info relevant for that regulated entity**

Checks by ETS2 verifier on Annex Xa info

- The regulated entity shares Annex Xa info received from ETS1 operator in line with Article 75v(2) MRR and any issues reported by the ETS 1 verifier on Annex Xa checks carried out
- ETS 2 verifier cross checks during the ETS2 verification Annex Xa information with Annex Xb information and other evidence from the regulated entities (Art 43l (6) AVR)
- ETS 2 verifier reports the following issues:
 - Confirmation that checks have been carried out by the ETS2 verifier
 - Confirmation whether Annex Xa information is consistent with Annex Xb information
 - Misstatements, non-conformities and non-compliance that are not corrected before issuing the verification report (Art 43r(3) (j), (n) and (o) AVR)

Thank you for your attention





EU ETS Monitoring and Reporting – CF Training event

Training Event on EU ETS MRVA impacts of FAR & ALC changes

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11 October 2024

Background: Changes to the Directive

- Changes to Annex I activities to include **new decarbonisation technologies**
 - E.g. **Electrification**, (green) **hydrogen**
 - **Scope**: e.g. steel, alumina
 - Express **capacity thresholds** in tonnes rather than in MW
- Introduction of the **CBAM (factor)**
- **Conditionality** of free allocation
- **Electricity generator** definition removed

Overview of main changes in the product benchmarks

- **Agglomerated iron ore** (previously only sintered ore was covered)
- **Hot metal**: scope extended to include direct reduced iron (“sponge iron”) → requires corresponding correction in the EAF BM, where relevant
- **Cement Clinker**: now also includes “alternative hydraulic binders”
- **Hydrogen**: new calculation approach in Annex III
- **(Do)lime**: clarified in Annex III that consistency with the AER shall be ensured
- General: concept of **exchangeability of fuel and electricity deleted**

3



Overview of main changes in fall-back benchmarks

- New / changes in fall-back sub-installations:
 - Further split of sub-installations into **CBAM / non-CBAM** (CN code reporting)
 - **Heat from electricity** (revised definitions of fuel/heat BM sub-installation)
 - **Heat recovery** from fuel BM / process emissions sub-installations
 - Deletion of the “**95% / de-minimis**” rule
- **Other changes:**
 - **Cessation** of installations (Article 26)
 - Reference price of **80€/t CO₂** for unreasonable costs

4



Overview of FA changes due to conditionalities

- Recommendations under Art. 8 of the **Energy Efficiency Directive**
- Requirement to draft a Climate Neutrality Plan (CNP)
 - Sub-installations **>80th percentile** on BM curve (2016/2017), if >20% installation's allocation
 - Optional **+30% to District Heating** in 5 MS
 - Milestones and targets laid down in CNP has been achieved by 31 December 2025 for the year 2025 and each fifth year thereafter for the relevant five-year period
- Installations exempted from CSCF application if sub-installations
 - Operated **< average of 10% best** for the BM, AND
 - Those sub-installations contribute > 60% to the installation's allocation

5



Transitional provisions

Type	Application	Started	Reporting for the first time	"Old" FAR rules	New FAR rules
Incumbent	NIMs 2026-2030	n.a.			X
	Normal ALC			X	
	Cessation (installation)				as of 2024*
New entrant		2022	2023	X	
		2022	2024	X**	X***
		2023	2024+	X**	X***
		2024+			X

* Art. 26 on cessation of the installation applies as of 2024
 ** for 2022 and 2023 allocations (using the ALC template version already available since 2021)
 ***for 2024+ allocations (using the recently "updated" ALC template)

6



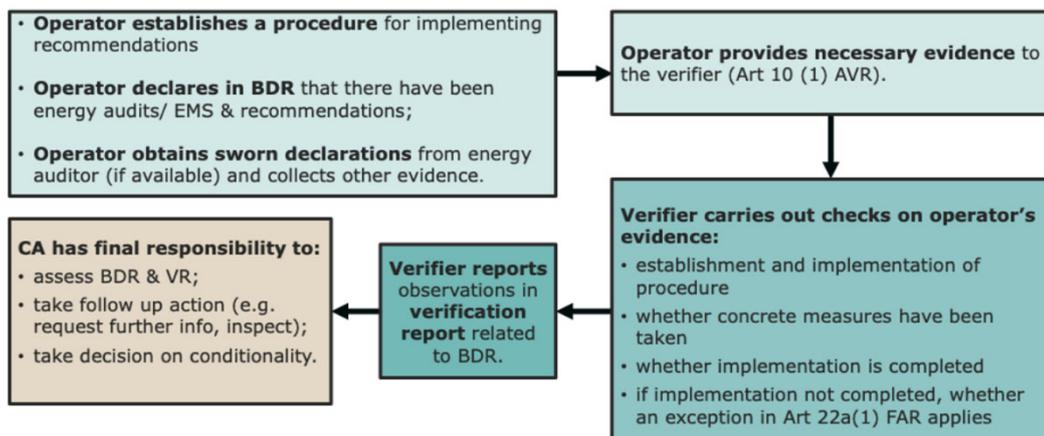
Overview of revision of the ALC Regulation

- **Revision is ongoing(!)**
- Aspects that are under discussion:
 - Specifying minimum content and requirements for **Climate neutrality reports (CNR)**
 - Annual cycle of implementation of **outstanding EED recommendations**
 - Optional **+30% for District Heating**
 - **Cessations** of sub-installations
 - **Absolute threshold** for ALC changes
 - **Energy efficiency improvements**
 - ...

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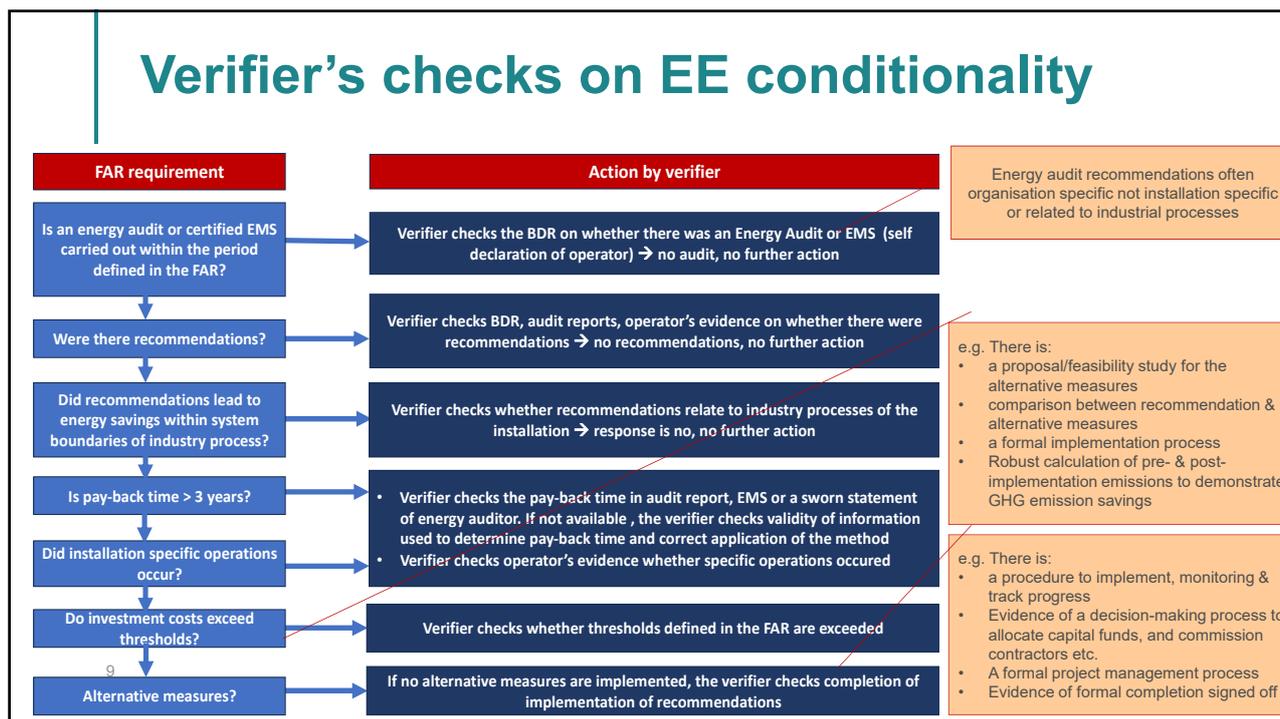
Energy Efficiency recommendations



Operator can obtain full allowances if it demonstrates that implementation of outstanding EE recommendation is completed and the verifier verifying ALC reports confirms this



Verifier's checks on EE conditionality



Verification of climate neutrality reports

- **The Directive and Article 22b FAR requires verification of achievement of milestones and targets laid down in the CNP**
 - To facilitate the verification the operator drafts a climate neutrality report
 - Verifier confirms achievement of milestones and targets when verifying the CNR
 - First verified CNR has to be submitted by 31 March 2026 for the 5-year period up to 31 December 2025
 - Second CNR is due by 31 March 2031 for the 5-year period up to 31 December 2030
- Verification of CNR follows similar steps as in any verification but on some aspects specific rules are needed

Verifier's role in the verification of CNR and achievement of milestones & targets to be regulated in the AVR

Verification of climate neutrality reports

- **Verifier checks on milestones & targets whether:**
 - intermediate and final milestones and targets have been met
 - information used to demonstrate achievement of milestones and targets is reasonable and free of material misstatements
 - qualitative milestones are commensurate and consistent with targets
- **Verifier checks on CNP**
 - Verifier uses CNP as a starting and reference point
 - Verifier checks implementation of elements in CNP related to milestones & targets
 - Identification of non-compliance of CNP with CNP implementing act must be reported in the verification report

Checks fall under **current competence requirements** of an EU ETS verifier



Thank you for your attention



EU ETS Compliance Forum

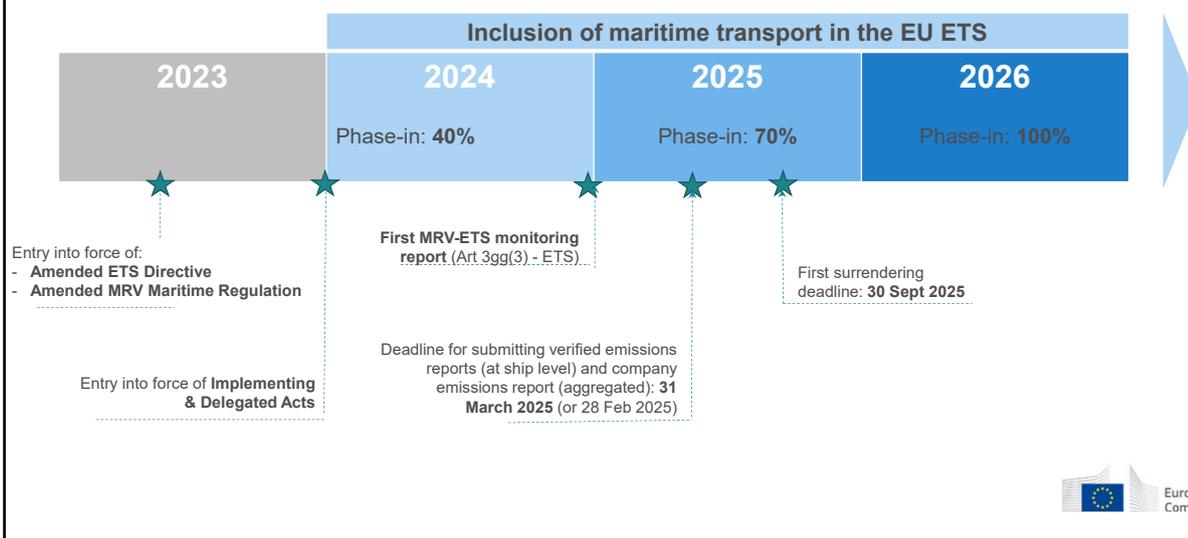
MRVA in the maritime sector

11 October 2024

Presentation content

- State of play of ETS extension to maritime transport
- Main references (incl. legislation & guidance)
- Exchange of views

State of play: ETS extension to emissions from maritime transport



MRVA for maritime: main references

Legislative texts

- [Directive 2003/87/EC](#) as amended by [Directive \(EU\) 2023/959](#)
- [Regulation \(EU\) 2015/757](#), as amended by [Regulation \(EU\) 2023/957](#): 'MRV Maritime' Regulation (i.e. **~equivalent to MRR** for other ETS sectors)
 - MRV Annexes I and II respectively lay down the methods for monitoring GHG emissions and for monitoring other relevant information; they have been amended following 2023 MRV revision by [Commission Delegated Regulation \(EU\) 2023/2776](#).
 - MRV Annexes I and II are currently being further amended in view of inclusion of offshore ships within MRV scope as of 2025 and for allowing zero-rating of emissions from synthetic low-carbon fuels (alignment with MRR).
- **Secondary legislation:**
 - Delegated Regulation (EU) 2023/2917 - [Verification activities, accreditation of verifiers and approval of monitoring plans by administering authorities \(repealing Commission Delegated Regulation \(EU\) 2016/2072\)](#) [i.e. **~equivalent to the AVR** for other ETS sectors]
 - Delegated Regulation (EU) 2023/2849 - [Rules for reporting and submission of the aggregated emissions data at company level](#)
 - Implementing Regulation (EU) 2023/2449 - [Templates for monitoring plans, emissions reports, partial emissions reports, documents of compliance, and reports at company level \(repealing Commission Implementing Regulation \(EU\) 2016/1927\)](#)
 - Implementing Regulation (EU) 2023/2599 - [Rules for the application of Directive 2003/87/EC as regards the administration of shipping companies by administering authorities in respect of a shipping company](#)
 - Implementing Decision (EU) 2024/411 - [List of shipping companies specifying the administering authority in respect of a shipping company in accordance with Directive 2003/87/EC](#)
 - Implementing Regulation (EU) 2023/2297 - [Neighbouring container transshipment ports pursuant to Directive 2003/87/EC](#)
 - Implementing Decision (EU) 2023/2895 - [List of small islands and ports and list of transnational PSC/O subject to specific ETS surrendering derogations](#)

MRVA for maritime: main references

Webinars and guidance

- **Guidance documents** have been published with the support of dedicated expert groups, i.e. CCEG Maritime formation and the sub-group on the implementation of MRV and ETS maritime within European Sustainable Shipping Forum (ESSF)
 - [General guidance for shipping companies: the EU ETS and MRV Maritime \(Guidance Document no. 1\)](#)
 - [General guidance on the process for approval of monitoring plans by administering authorities \(Guidance Document no. 2\)](#)
- [ETS maritime FAQ](#), [MRV FAQ](#) and [THETIS-MRV tutorial videos](#)
- [Series of webinars](#) on ETS extension to maritime transport, including on the Attribution List and the Monitoring Plan revision (resources publicly online, on EMSA's website)
- Dedicated **Helpdesk**: fitfor55@emsa.europa.eu
- **Dedicated Task Force on Maritime** under the EU ETS Compliance Forum recently launched by Member State authorities (co-Chaired by Greece & Cyprus)

5



MRVA for maritime: next steps

- **Minor amendments to GD1 ongoing**, expected publication of the revised version by end 2024
- **Publication of a new Guidance Document n°3 on verification and accreditation** expected early 2025 (to update and consolidate existing guidance documents in light of Delegated Regulation (EU) 2023/2917)

6



Questions & Answers



Thank you

Further questions? Frequently Asked Questions (FAQs) available for [MRV](#) and [EU ETS](#)

Dedicated Helpdesk: fitfor55@emsa.europa.eu



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Update on aviation non-CO₂ MRV operationalisation

Dimitar Nikov
DG CLIMA, Unit B4
European Commission

EU ETS Compliance forum training

11 October 2024

Overview

- State of play and timeline on the non-CO₂ MRV
- Macro-view on the MRV – features, data, functioning
- Draft monitoring plan template run through
- AVR - verification scenarios sneak peek

State of play and timeline

- Monitoring and Reporting regulation (MRR) update - [Commission Implementing Regulation \(EU\) 2024/2493 of 23 September 2024](#)
 - **Monitoring plan template** : ad-hoc WG Non-CO2 MRV working on it (comments by 16 October 2024; CCEG to be consulted (22 October 2024)) – to be published in November 2024
 - **Initial* Guidance document** : completing available ones : [FAQ](#) and [June 2024 Step by Step guide](#)) – to be published in early December 2024
 - **Guidance workshop**: How to start the MRV in pre-NEATS environment? – 6 December 2024 (virtual)
 - *Final Guidance document (and associated training on NEATS) to take place in 2025 (once NEATS is available)
 - **Training(s)** on preparing the monitoring plan – est. December 2024
 - Documentation informing NEATS (models parameters, efficacy definition, etc.) – exp. February 2025
- Accreditation and Verification regulation (AVR) update – under way
 - Draft concept note to be presented in TWG MRVA on 15 October 2024

Balance between flexibility and data precision of the MRV

- **Innovative metric** GWP with multiple time horizons (20, 50, and 100 years), with efficacy applied through NEATS, to express the CO₂e/flight, avoiding lock-in effects,
- **Menu-like NEATS** automatising the entire MRV process, where other than the fuel properties (e.g. aromatic content, H/C ratio, sulphur, etc.), only aircraft properties (aircraft type, engine UID and aircraft mass) are to be sourced by the aircraft operators (unless automatized as well),
- Simplification for **small emitters** (<25 ktCO₂/y),
- **No mandatory quick access recorder (QAR) data** - using third-party available data (e.g. provided by EUROCONTROL and national weather services with a common reference NWP model) rather than data measured in-flight (measured data allowed in NEATS – confidential data is protected),
- **Default values** (fuel properties, engine UID, aircraft mass) in case no data is provided, possibility of fully automatic MRV. Important for ensuring transparency and consistency,
- **Transparent and state-of-art models and modules**: climatological location-simplified model approach ((open)AirClim) for **small emitters**, while default is the weather-based approach (CoCIP and aCCF). Those are preceded by modules: BADA and Boeing FFM2 respectfully for fuel-burn and emissions.

MRV data and NEATS

1. Flight information (call sign in UTC)
 - a. Flight number
 - b. Day and time
 - c. Departure and arrival airport (ICAO codes and/or IATA location identifiers)

Provided by NEATS (can be checked and corrected by AO)
 Non-confidential
 Needed in both Method C (weather-dependent (DEFAULT) approach and Method D (location-simplified approach)
2. Flight trajectory (4D)
 - a. Timestamp (time interval between 2 time stamps, ideally 60 sec but could be more (linear interpolation within a flight phase, esp. cruise)
 - b. Latitude
 - c. Longitude
 - d. Altitude

Provided by NEATS (source: ECTL : model 1,2,3 with possible alternatives and equivalence in terms of data, ex: ADS-B, where relevant)
 Non-confidential
 Needed in both Method C&D (different definition depending on the Method)
3. Aircraft properties
 - a. Aircraft type
 - b. Engine UID
 - c. Aircraft mass

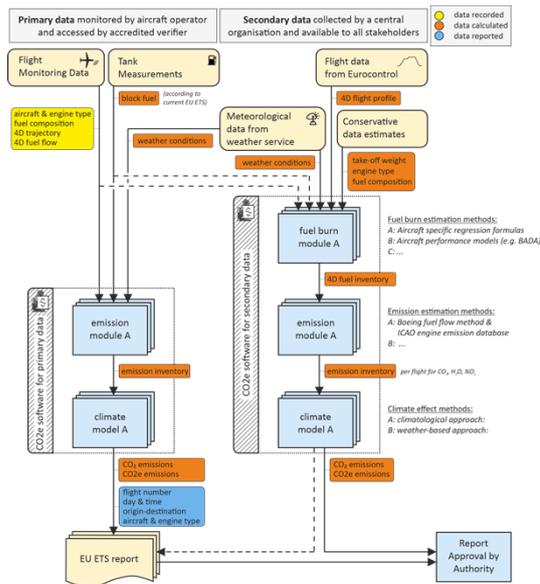
Can be provided by NEATS (if Defaults are used, Annex IIIb of MRR – conservative defaults values for engine UID per aircraft type, based on ICAO EDB)
 Non-confidential (?) (unless aircraft mass is not provided, and if AO needs to provide load factor, unless Default value of 1 is used)
 Needed in both Method C&D
4. Aircraft performance (*optional*)
 - a. Fuel flow
 - b. Aircraft performance model
 - c. Engine efficiency

If no fuel flow measured or estimated through own models, NEATS can estimate (ECTL BADA)
 Confidential
 Optional in both Method C&D
5. Fuel properties
 - a. Hydrogen to carbon (H/C) ratio
 - b. Aromatic content of the fuel
 - c. Net calorific value

Challenge : mixed in airport fuel farm. Leads on finding the data : e.g. info from fuel suppliers per batch to purchasing AO, to be facilitated by update of IATA fuel invoice standard; AO to determine dynamic max levels per airport according to batches, used to calculate H/C per flight. Coordination with ReFuelEU (Art.10) encouraged.
 Confidential (?). Defaults in NEATS: max regulatory (known) levels (ASTM)
 Needed in Method C
6. Weather data
 - a. Basic weather data (altitude corrected humidity, temperature, pressure), OR
 - b. Enhanced weather data (above + RH, etc) through NWP

Common reference NWP model provided through NEATS (national weather service)
 Enhanced and basic needed respectively in Method C and Method D

MRV Functioning



Draft monitoring plan template run through

AVR work in progress (draft concept note) sneak peek

Verification very much dependent on the possible monitoring and reporting scenarios and data flow

- **Scenario 1.** *No primary data and use of NEATS only* → Automatic verification through NEATS - the non-CO₂ aviation effects report is automatically generated from NEATS, without any input from the AO (secondary data and all defaults values are used).
- **Scenario 2.** *No primary data and use only of other IT tools approved by the Commission* → Automatic verification through the IT tools of the generated report, without any input from the AO (same options apply as in Scenario 1).
- **Scenario 3.** *Input of primary data and possible use of other modules* → *it is important for a verifier to check data flow, procedures and perform checks on data. The detail & type of verification depends on:*
 - The complexity of primary data inserted in NEATS / other IT tools approved by the Commission and complexity of data flow & monitoring processes (input of fuel flow, fuel properties & own modules lead to greater complexity than input of flight data or aircraft properties)
 - The verifier's risk analysis is an important factor in determining the level and detail of verification
 - Complexity of verification has an impact on the required competences of the verifierOngoing assessment of several options for the verification of non-CO₂ aviation effects



Thank you



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9



EU ETS Monitoring and Reporting – CF Training event

New rules on monitoring and reporting of alternative and eligible aviation fuels

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11 October 2024

Problem definition – What aviation fuels exist?

Mixed fuels consist of the following fractions:

- Fossil → Zero-rated
- Biomass → Not zero-rated
- Renewable Fuels of Non-Biological Origin (RFNBOs)
Recycled Carbon Fuels (RCFs) → Zero-rated
→ Not zero-rated
- Synthetic low-carbon fuels (SLCFs) → Zero-rated
- Eligible aviation fuels – only zero-rated → Not zero-rated

Criteria for zero-rating and gathering evidence using certification schemes have already been discussed in the presentation in the morning for stationary installations

Impact of alternative fuels

- Zero-rated fuels: The emission factor shall be zero
 - No allowances have to be surrendered
 - For transparency reasons, reporting as “memo-items”
- Eligible aviation fuels: Eligible for support under Article 3c(6) of the EU ETS Directive
 - 20 Million EUAs is reserved to cover (a part of) the price differential between fossil kerosene and the eligible aviation fuel

3



Zero-rating – Example: Biomass

Always for assessment of EU ETS thresholds and for CORSIA reporting

$$\text{CO}_2 \text{ entering the atmosphere} = \text{MFQ} \times \text{EF}_{\text{pre}}$$

$$\text{Fossil NFQ} = \text{MFQ} \times \text{Fossil Fraction}$$

$$\text{Biofuels NFQ} = \text{MFQ} \times \text{BF}$$

Neat fossil fuel

Neat non-certified biofuels

Neat biofuels certified to comply with RED II

$$= \text{MFQ} \times \text{BF}_{\text{non-zero}}$$

$$= \text{MFQ} \times \text{BF}_{\text{zero-rated}}$$

CO₂ for which allowances have to be surrendered

Zero-rated biomass CO₂

$$= (\text{NFQ}_{\text{fossil}} + \text{NFQ}_{\text{non-zero}}) \times \text{EF}_{\text{pre}}$$

$$= \text{NFQ}_{\text{zero-rated}} \times \text{EF}_{\text{pre}}$$

EF_{pre} ... Preliminary Emission Factor
NFQ ... Quantity of neat aviation fuel

MFQ ... Fuel Quantity of mixed aviation fuels
BF ... Biomass fraction



Reporting as neat fuels - example

- If aircraft operator purchases e.g. 800 tonnes of fossil kerosene and 200 tonnes of (RED II certified) biofuel at Vienna airport → normal reporting of two separate fuels
- If the AO purchases 500 tonnes of a blended Jet-A1 (mixed aviation fuel) at Salzburg airport, containing 20% certified biofuel, the AO monitors:
 - Fuel type: 20% blended Jet A1; fuel quantity: 500 t
 - Fossil fraction: 80%, zero-rated biomass fraction 20%, non-zero-rated BF = 0%
- That AO has to report considering the following neat fuels:
 - 400 t fossil Jet-A1 ($500 * 0.8$)
 - 100 t zero-rated biomass Jet-A1 ($500 * 0.2$)

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Why split zero-rated and other fractions?

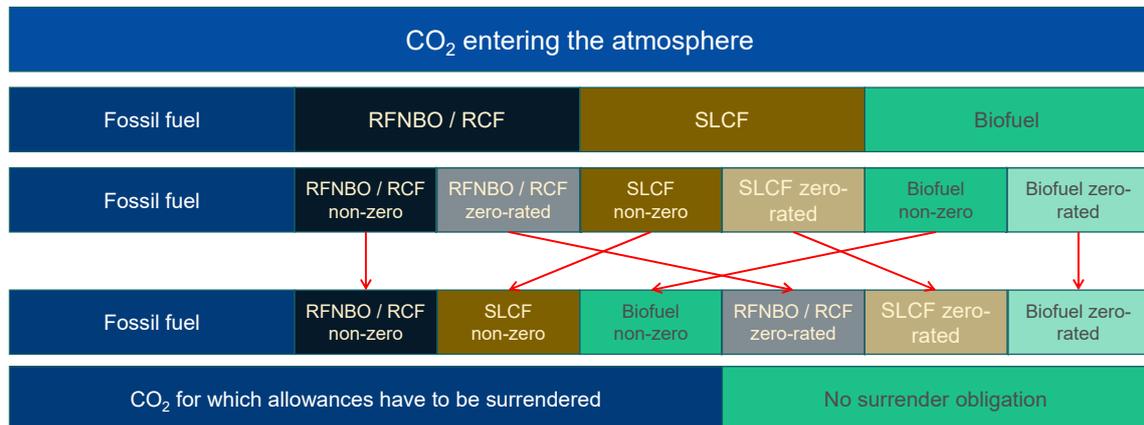
- Aircraft operators argue that alternative aviation fuels are expensive, so they would not purchase them if not zero-rated
- Argument credible, yet situations may occur where evidence for meeting the criteria for zero-rating is not available (e.g. proof of sustainability for biomass not provided) → in such case, the fuel cannot be zero-rated
- For transparency, it should nevertheless not be reported as conventional fossil fuel

6



Other alternative aviation fuels

- Theoretically most complex mixture of fuels:

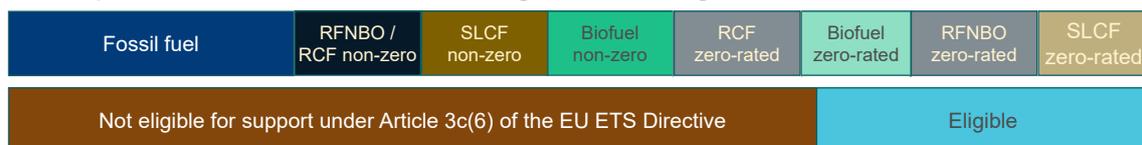


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Eligible Aviation fuels

- Advanced biofuels, i.e. from feedstock listed in RED II Annex IX part A
- Biofuels from feedstock listed in RED II Annex IX part B
- Biofuels except if produced from “food and feed crops”, certified under RED II
- Drop-in RFNBOs, certified under RED II
- Synthetic low-carbon aviation fuels, certified under the Gas Directive
- Co-processed aviation fuels falling under categories above



8



Attribution of fuels to flights at airports

- Refined rules for attributing alternative and eligible fuels to flights
- Aims at introducing the **proportionality principle** along the requirements of the EU ETS Directive
- Aims at avoiding potential double counting of alternative fuels or under separate compliance systems (flights under EU ETS, UK ETS, CH ETS, CORSIA)

9



Attribution of fuels – alternative fuels

- Option 1: Fuels can be physically attributed to flights:
 - E.g. a truck delivers a specific (blended or neat) fuel to the aircraft, and the subsequent flight is an EU ETS flight
 - Evidence for the physical delivery shall be provided by the AO
 - Rule for tankering: split the neat fuel according to the emissions of the two flights using the EF_{pre}
- Option 2: no physical attribution:
 - At airports with integrated pipeline system
 - Attribute using the following factor

$$F = \frac{\text{Emissions of flights from this airport for which allowances have to be surrendered by the AO}}{\text{Emissions of all flights of the AO departing from this airport}}$$

- Evidence must be provided that the alternative fuel was delivered to the fuelling system of the departure aerodrome in the reporting period, or 3 months before the start, or 3 months after the end, of that reporting period

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Attribution of fuels – limitations

- For both of the options, the AO has to provide the following evidence:
 - Total amount of alternative aviation fuel claimed \leq total fuel usage of that AO from that airport for flights under the EU ETS
 - Amount of alternative aviation fuel for flights under EU ETS \leq total quantity of alternative aviation fuel purchased minus fuels sold to third parties
 - Ratio between alternative aviation fuels and fossil fuels attributed to flights (aerodrome pairs) does not exceed the maximum blending limit for that fuel type as certified according to a recognised international standard;
 - No double counting of the same quantity of alternative aviation fuel, in particular that the alternative aviation fuel purchased is not claimed to be used in an earlier report or by another aircraft operator, or in another carbon pricing system (UDB may be used for proof)
- Any fuel remaining in tanks after a flight and before an uplift is assumed to be 100 % fossil fuel.

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Attribution of fuels – proportionality example

- An aircraft operator purchases 100 tonnes of RED-certified biofuel at Frankfurt airport (100% SAF purchase or determined as neat from mixed aviation fuel)
- The aircraft operator determines the total CO₂ emissions from flights subject to surrender departing from Frankfurt (intra-EEA flights) to be 10,000 tonnes CO₂ (using preliminary EF)
- The aircraft operator determines the total CO₂ emissions from all flights departing from Frankfurt (intra-EEA and extra-EEA flights) to be 50,000 tonnes CO₂ (using preliminary EF)
- The aircraft operator determines the proportionality factor:
 - $F = 10,000 / 50,000 = 0.2$ (20%)
- The AO can report:
 - 20 tonnes of RED-certified biofuel at Frankfurt airport ($100 * 0.2$)
 - Reported in the AER on aerodrome pairs departing from Frankfurt freely following certain limitations

12



Attribution of fuels – eligible aviation fuels

- Option 1: Fuels can be physically attributed to flights:
 - E.g. a truck delivers a specific (blended or neat) fuel to the aircraft, and the subsequent flight is an EU ETS flight
 - Evidence for the physical delivery shall be provided by the AO
 - Rule for tankering: split the neat fuel according to the emissions of the EF_{pre}
- Option 2: no physical attribution:
 - At airports with integrated pipeline system
 - Attribute using the following factor

Different geographical scope

$$F = \frac{\text{Emissions to be surrendered by the AO} + \text{Emissions from domestic OMR flights}}{\text{Emissions of all flights of the AO departing from this airport}}$$
 - Evidence must be provided that the alternative fuel was delivered to the fuelling system of the departure aerodrome in the reporting period, or 3 months before the start, or 3 months after the end, of that reporting period

13

Thank you for your attention

14



EU ETS Monitoring and Reporting – CF Training event

Training Event

New MRV rules on biomass, RFNBO/RCF and SLCF

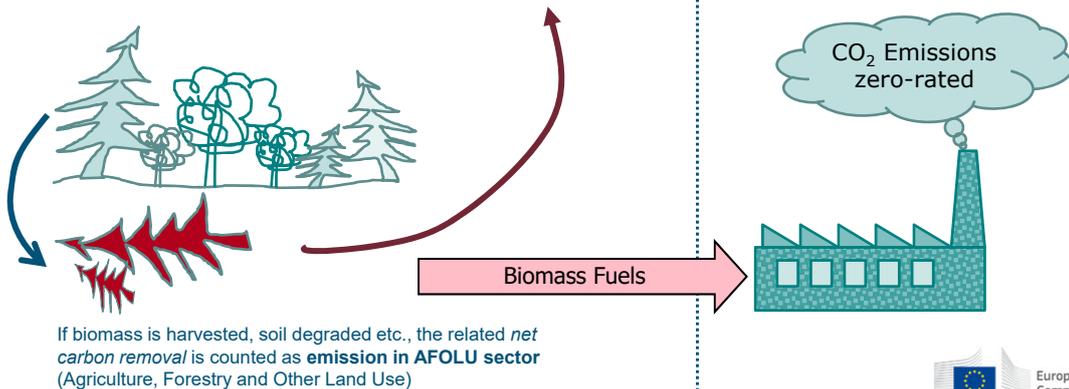
17 October 2024

Overview (Table of contents)

- **General aspects of zero-rating**
- **The different fuel fractions and how to determine them**
 - Biomass total / zero-rated
 - RFNBO/RCF/SLCFs
- **What criteria apply to zero rating?**
 - Biomass
 - RFNBO / RCF
 - SLCFs

The initial problem – Biomass accounting

	Non-ETS (AFOLU*)	EU ETS sector
Physical emissions	0	+ Em
Accounting rules	+ Em (Harvest)	0



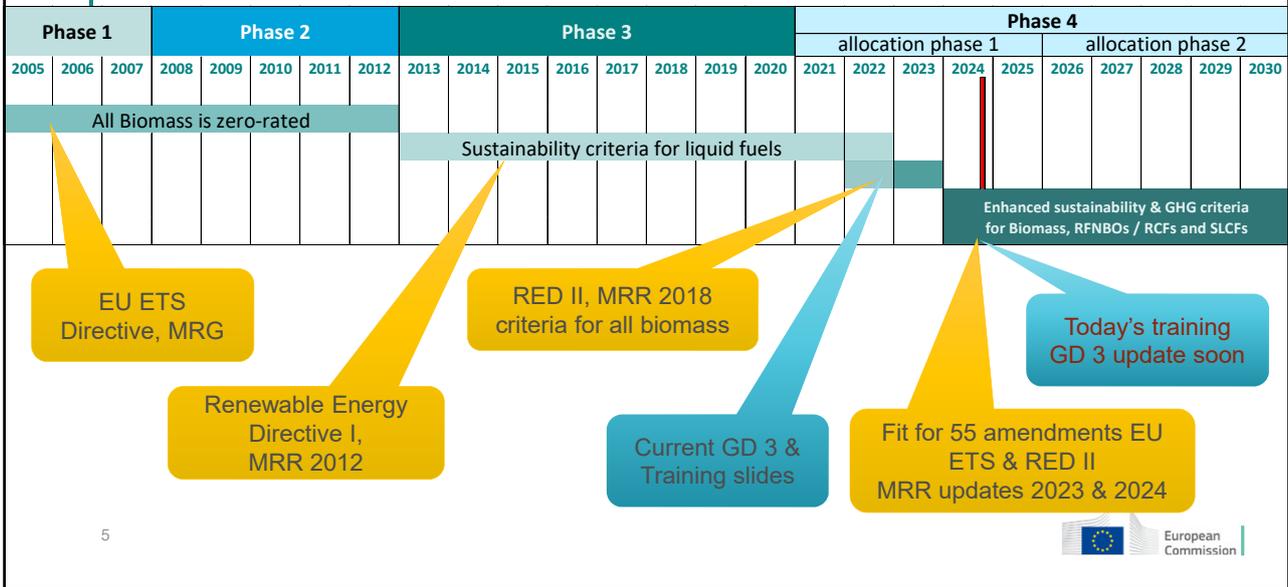
Zero-rating: Problem definition

Zero-rating is a tool for avoiding double counting of CO₂ emissions
However, for avoiding unintended incentives (deforestation etc.), some criteria must be met

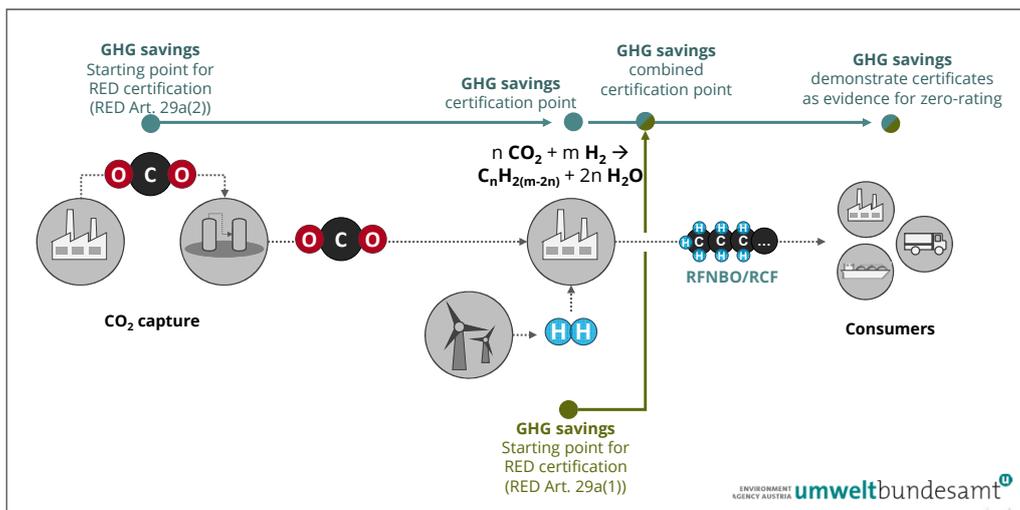
Mixed fuels consist of the following fractions:

- Fossil → Zero-rated
- Biomass → Not zero-rated
- Renewable Fuels of Non-Biological Origin (RFNBOs) → Zero-rated
- Recycled Carbon Fuels (RCFs) → Not zero-rated
- Synthetic low-carbon fuels (SLCFs) → Zero-rated
- Synthetic low-carbon fuels (SLCFs) → Not zero-rated

The long history of zero-rating



RFNBO/RCF and SLCF production



Carbon source	Processed with...	pure/purified, processed	H ₂ (from renewable sources)	H ₂ (low carbon / from nuclear)	Any other H ₂ (grey, blue,...)
			RED Art. 29a(1)	GMD Art. 9***	
Biomass (excl. waste/residue)	RED Art. 29(2)(a)(7)	All bioenergy	-	-	-
Biomass waste/residue	RED Art. 29(10)	e.g. waste-derived fuels	e.g. HVO (Hydrotreated Vegetable Oil)		
Fossil part of solid/liquid waste (RED Art. 3(35))	RED Art. 29a(2)	Liquid/gaseous fuels*	Liquid/gaseous fuels*	Liquid/gaseous fuels*	-
CO ₂ in flue gas (RED Art. 3(35))	RED Art. 29a(2)	-	Liquid/gaseous fuels*	Liquid/gaseous fuels*	-
CO ₂ (from DAC or BEC**)	RED Art. 29a(2)	-	Liquid/gaseous fuels*	-	-
No carbon content		-	H ₂ , NH ₃	H ₂ , NH ₃	-

■ Bioenergy
 ■ RFNBO
 ■ RCF
 ■ SLCF

7
 * Liquid and gaseous fuels commonly referred to as e-Fuels, Power-to-Liquid, Power-to-Gas, Synthetic Natural Gas, etc.
 ** Direct Air Capture, Bio-Carbon Capture
 ***GMD = Gas Market Directive (EU) 2024/1788

ENVIRONMENT AGENCY AUSTRIA **umweltbundesamt**⁰


Zero-rating – Example: Biomass

$$\text{CO}_2 \text{ entering the atmosphere} = \text{FQ} \times \text{EF}_{\text{pre}}$$

$$\text{Fossil CO}_2 = \text{FQ} \times \text{EF}_{\text{pre}} \times \text{Fossil Fraction}$$

$$\text{CO}_2 \text{ from biofuels} = \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}$$

Fossil CO₂

CO₂ from non-certified biofuels

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{non-zero}}$$

CO₂ from Biofuels certified to comply with RED II

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{zero-rated}}$$

CO₂ for which allowances have to be surrendered

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times (\text{FF} + \text{BF}_{\text{non-zero}})$$

Zero-rated biomass CO₂

$$= \text{FQ} \times \text{EF}_{\text{pre}} \times \text{BF}_{\text{zero-rated}}$$

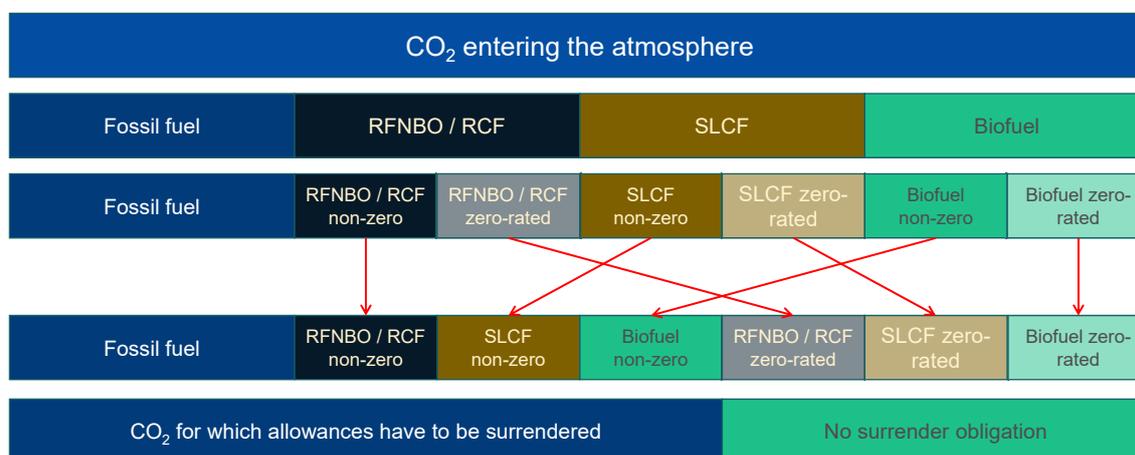
EF_{pre} ... Preliminary Emission Factor

FQ ... Fuel Quantity

BF ... Biomass fraction



Theoretically most complex mixture of fuels



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How to determine those fractions?

- The operator has to determine biomass fraction only where biomass is used, RFNBO/RCF/SLCF only where such fuels are purchased/used
- The determination of a zero-rated fraction is voluntary
- In many cases the zero-rated fraction equals the total fraction of a type
→ non-zero rated fraction does not have to be determined

Note: Laboratory analyses work only for biomass, not for RFNBO/RCF and SLCFs

Monitoring Plan has to cover only fractions actually relevant

10

How to determine those fractions? (2)

- **Use of a neat fuel** (=100% of the same fuel, no blending):
 - If 100 t purchased, RED II “certificates” (correct term: “Proof of Sustainability”, PoS) available only for 80% → zero rated fraction = 80%, non-zero-rated fraction = 20%
 - More frequently expected: 100% PoS received → no need to determine a non-zero-rated fraction
- **Purchase of 200 tonnes of a defined blended fuel** (e.g. 30% RCF blended with 70% normal fossil fuel)
 - If PoS is available for those 200 x 30% = 60 tonnes RCF → zero-rated RCF fraction = 30%, non-zero-rated RCF fraction = 70% = 140 tonnes fuel
- **Etc.**

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How to determine biomass fractions?

- For checking which **sustainability** and **GHG savings** criteria apply, use the “**Decision tree**” (see later slides)
- If **RED II criteria do not apply**, e.g. for municipal solid waste:
 - Only provide evidence that it is a case where no RED II criteria apply
 - Determine total biomass fraction according to the relevant tier (100%, other default value, estimation method (e.g. material balance), or analyses)
 - Zero-rated biomass fraction is then identical to total biomass fraction
- If **RED II criteria apply**:
 - Determine total biomass fraction as above
 - Determine zero-rated biomass fraction using PoS
 - Non-zero-rated fraction = total biomass fraction – zero-rated fraction

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How to determine biomass fractions? (2)

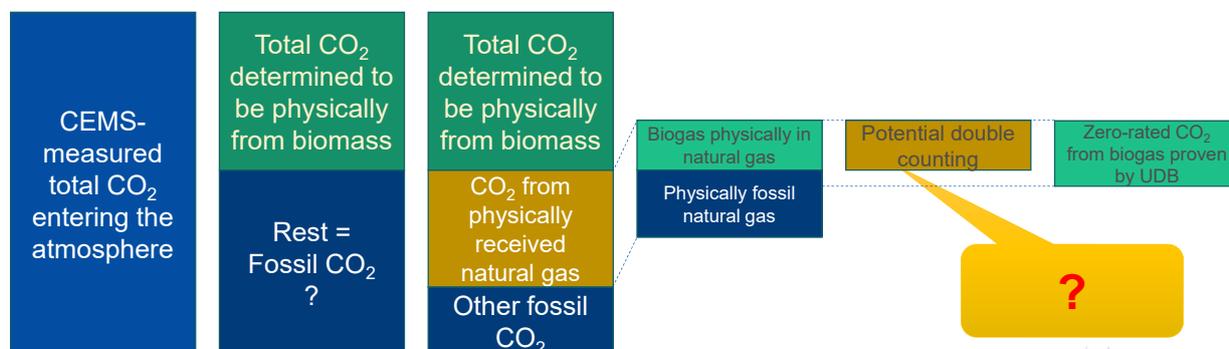
- For **biogas in natural gas grids** (Article 39(4) MRR):
 - An approach **purely based on purchase records** is used, i.e. if biogas is purchased linked with a PoS, this amount is considered the zero-rated biomass fraction as well as the total biomass fraction
 - **No analyses of that gas are allowed**
→ the physically received gas may have a very different biomass fraction
 - **New:** The whole EU gas grid is considered to fall into **one single mass balance** in accordance with the RED II, as reflected in the Union Database (UDB)
→ of the PoS in the UDB has been cancelled for the purchased amount of biogas, no further proof is needed.
 - If a **non-compliance** is detected later in the UDB, the competent authority needs to correct the verified emissions accordingly

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Special case CEMS & biogas from grid

- If the operator uses CEMS and an approach for determining biomass based on analyses (e.g. ^{14}C based on continuous sampling), but also uses natural gas from the grid (with purchased biogas via UDB), the situation is as follows:

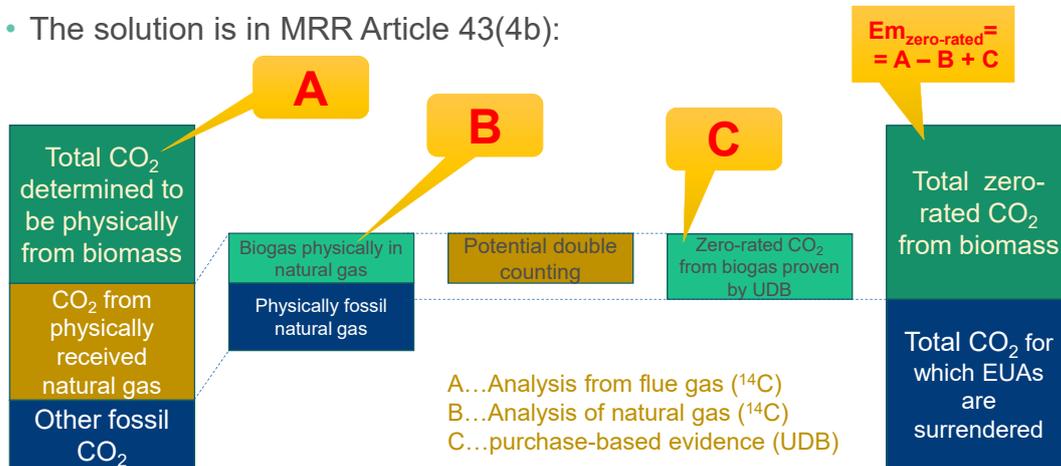


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Special case CEMS & biogas from grid (2)

- The solution is in MRR Article 43(4b):



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Criteria for zero-rating

- Biomass**
- RFNBO / RCF**
- SLCF**

Focus only on new elements of the MRR and RED II

In many points, [training material of 2022](#) is still valid

Please look out for an updated version of GD 3 –
Check this website: https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/monitoring-reporting-and-verification-eu-ets-emissions_en#documentation

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Biomass – RED II criteria

- Article 38(5) of the MRR: relevant are:
 - RED II Article 29(2) to (7) – the “land-related” sustainability criteria
 - RED II Article 29(10) – the GHG savings criteria
 - And criteria shall be assessed in accordance with Articles 30 and 31(1) of the RED II

Mass balance and rules for certification schemes

Calculation of GHG savings

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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:

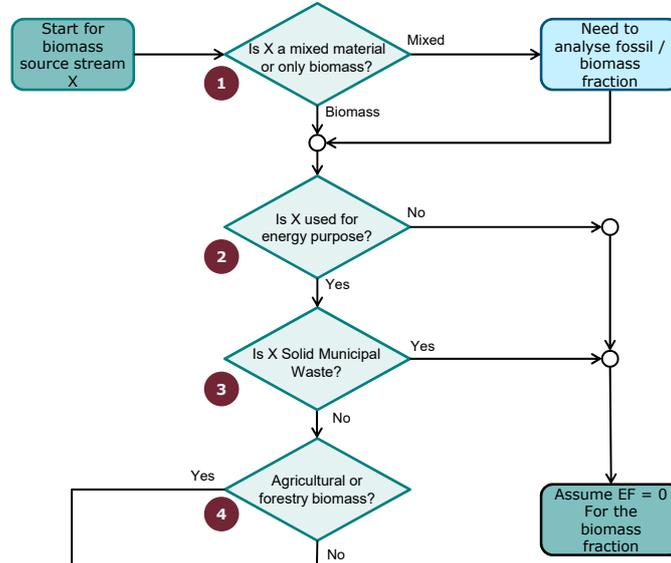
Start date	Biomass fuels in general	Biomass fuels Installations ≥ 10 MW	Gaseous biomass fuels ≤ 10 MW
after 20 November 2023	(d) 80%	–	–
between 1 January 2021 and 20 November 2023	–	(e) 70% until 31 December 2029; 80% from 1 January 2030	(f) 70% for first 15 years; 80% after 15 years operation
before 1 January 2021	–	(g) 80% after operation of 15 years; at earliest from 1 January 2026, at latest from 31 December 2029	(h) 80% after operation of 15 years, at earliest from 1 January 2026

- Savings relate to *life cycle emissions* compared vs. a given fossil comparator.

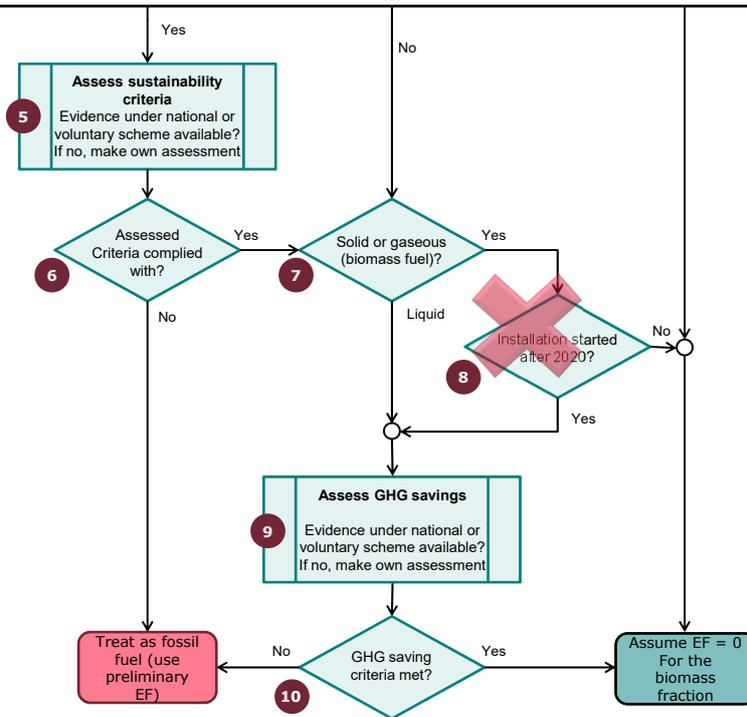
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RED II: Which criteria apply?



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20



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, aircraft operator, shipping company or regulated entity (ETS2)!

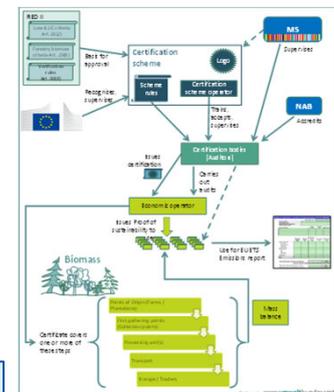
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How do RED II certification schemes work

- In principle unchanged → see 2022 training
- Commission website: 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.

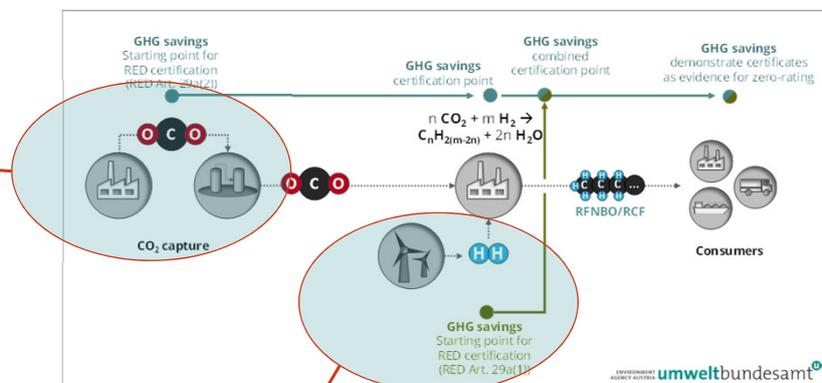


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RFNBO/RCF and SLCF criteria

Carbon source (CO₂)
May also have to comply
with certain requirements



Electricity must be "new renewable"
(in case of SLCFs: "new low carbon")

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RFNBO / RCF

- **GHG savings criterion:** Savings must be > 70% (RED II Article 29a)
- **Life cycle assessment** in accordance with Commission Delegated Regulation (EU) 2023/1185 – http://data.europa.eu/eli/reg_del/2023/1185/oj
- Regarding **renewable electricity** must meet criteria of Commission Delegated Regulation (EU) 2023/1184 – http://data.europa.eu/eli/reg_del/2023/1184/oj
- EU ETS operators will usually not determine themselves whether criteria are met, but **use a PoS from a certification scheme** (or directly from the Union Database)

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Synthetic Low Carbon Fuels

- **GHG savings criterion:** Savings must be > 70% (as part of their definition in Directive (EU) 2024/1788)
- GHG savings to be **calculated like for RFNBO** (rules provided by RED II and implementing legislation)
- In addition, the CO₂ used must come **from a source for which allowances under the EU ETS Directive have been surrendered**, unless that captured carbon is zero-rated carbon as defined in the MRR (i.e. double counting of that CO₂ is avoided by the criterion)
- **Electricity used:** 70% GHG savings, but not renewable

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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

1

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 (AACCS);
- 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;

2



EC recognised national and voluntary certification schemes (VSs)

- 2 VSs technically compliant for biomass certification but still not formally recognised;
- 3 VSs expected to be recognised for RFNBOs certification by end 2024;
- Certification of Low Carbon Fuels will be possible only after adoption of the DA that defines the methodology (draft DA just published for public feedback).

3



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, SBP and KZR INiG officially recognised/ PEFC and ISCC technically compliant but no formal decision published yet;
 - ✓ RFNBOs certification 3 VSs to be recognised by end 2024: ISCC, CertifHy, REDcert;
 - ✓ 2-3 VSs expected to complete the technical assessment by end 2024 for certifying fuels from co-processing (fossil raw materials & biomass)

4



EC recognised national and voluntary certification schemes (VSs)

- All recognised certification schemes have updated their documentation to be compliant with the Implementing Regulation (IR) on sustainability certification (entered into application since end December 2023) in order to keep their status of recognised schemes.
- Same process of updating of methodologies will be carried out for reflecting on the recently revised RED II.
- All the information on the process, assessment protocol, and status of certification schemes can be accessed at: [Voluntary schemes \(europa.eu\)](https://europa.eu)

5



National & Voluntary schemes assessment process under REDII

- Technical assessment uses a publicly available Assessment Protocol template which covers all relevant aspects: – Land criteria (agriculture and forest) – GHG emission savings – Mass balance – Audit Quality and Scheme governance; Special Protocol for RFNBOs assessment.
- Assessment Protocol was updated in line with Implementing Regulation on sustainability certification and last revision of RED II;
- This certification is valid only for the purposes of the RED. Non-energy purposes of biomass use are out of scope for this certification.

6



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).

7



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.

8



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;

9



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;

10



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.

11



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 certifying gaseous fuels in interconnected grids;
- 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 orin
 RCFs = recycled carbon fuels



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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Some information on planned revisions of the IR on sustainability certification

- Amendment of the article 11.1 on accreditation of certification bodies (to be adopted by end 2024).
- A second revision to further develop certain rules (e.g. cooperation in supervision of competent authorities of Member States, Low-ILUC risk certification, more detailed rules on the Union Database etc.).

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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 not¹⁹ allowed!



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!



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!

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. ~~no~~—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(l): 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).

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Article 19.2(l): 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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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!





EU ETS Monitoring and Reporting – CF Training event

Training Event

**New MRV rules on biomass, RFNBO/RCF and SLCF –
Verification and Accreditation**

17 October 2024

Overviews (Table of contents)

What impact do the new MRR rules on biomass fuels, RFNBO/RCF, SLCF have on verification?

- How does it affect the planning of verification?
- How does it affect the verifier's checks during the process analysis?
- How does a verifier check compliance with sustainability and GHG savings criteria?
- How does it affect verifier's reporting?

General impact on verification

- Some of the new rules on biomass, RFNBO/RCF/SLCF have a similar impact on verification as the rules on biomass fuels at the start of phase 4
 - ✓ How to check 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 elements are however new and require specific checks
 - ✓ Checking the fractions in the fuel (e.g. biomass fraction/RFNBO/RCF and SLCF fraction)
 - ✓ New monitoring rules on RFNBO/RCF and SLCF and on zero-rating in general
 - ✓ New rules on CEMS and rules on injection of RFNBO/RCF in the natural gas grid
 - ✓ Strengthened rules on sustainability criteria and GHG savings (REDII) criteria



Elements to consider by the verifier

- Risks in the data flow increases if data flow is more complex
 - ✓ If a fuel contains different renewable energy fractions (e.g. zero-rated and non-zero-rated biomass fraction, RFNBO/RCF fraction and SLCF fraction)
 - ✓ The % of renewable energy fraction. If the % is high the monitoring is more simple
 - ✓ The applicability of sustainability and GHG savings criteria → REDII criteria have strengthened so verifiers need to be aware of the new REDII criteria
 - ✓ The type of evidence and approach used to demonstrate compliance with REDII criteria
- Heterogeneity and composition of different batches of biomass can vary which will have an impact on monitoring and thus verification
 - ✓ Applicability of waste and municipal waste
 - ✓ Differences between batches: e.g. for one batch biomass, RFNBO/RCF, SLCF criteria have been met whereas for the other batch these criteria have not been complied with.



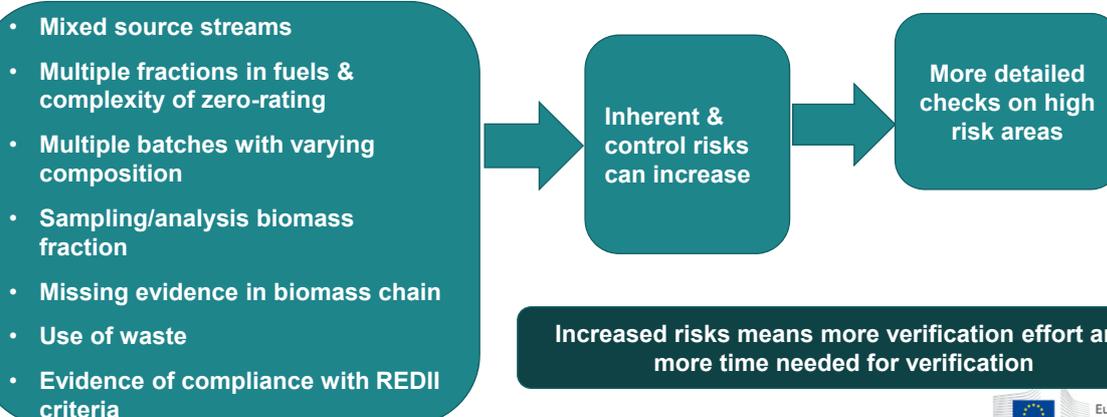
Elements a verifier needs to consider

- 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 complexity of monitoring can have an impact on the risks of misstatements in the data flow , e.g.
 - ✓ The method used to determine the biomass fraction (e.g. sampling and analysis or default value or estimation method)
 - ✓ Application of CEMS and an approach for determining biomass based on analyses (e.g. 14C based on continuous sampling)
 - ✓ Injection of biogas or RFNBO/RCF in the natural gas grid



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



Information needed from operator

Information needed from operator on biomass, RFNBO/RCF or SLCF related issues

Regular documentation

Monitoring plan
Operator's risk assessment
Data flow
Control system/ procedures

Evidence compliance with RED II criteria

- Certification if applicable
- Proof of sustainability
- Additional evidence depending on approach applied
- Access to Union/ national database if applicable (from operator)

Any other relevant information

Depending on the applicable monitoring methodology

Verifier determines at various stages what evidence is needed

Verifier should start early to identify what evidence is missing and what follow-up action is needed

Verifier's checks on source streams

- The verifier checks completeness of source streams
 - ✓ Are all renewable source streams included in MP (biomass, RFNBO/RCF and SLCF)
 - ✓ What type of biomass is used? Is this waste or municipal waste?
 - ✓ Are source streams correctly delineated/classified in line with MP & MRR?
 - ✓ Are batches of biomass, RFNBO/RCF, SLCF the same source or different source streams and is that applied consistently?
 - ✓ What different types of fractions can be distinguished and what part is zero-rated and what not?
- How to check completeness of source streams
 - ✓ Assessment of boundaries of installations and source streams (on site visit)
 - ✓ Checking documentations and records (fuel invoices, data flow diagrams etc.)
 - ✓ Establishment, implementation and documentation of procedures

Verifier's checks on monitoring aspects

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

In principle the verifier performs similar checks in data verification and check on approved monitoring methodology as they do on other fuels

- ✓ The verifier checks whether the monitoring methodology listed in the approved monitoring plan is applied correctly

The type of checks on the application of the monitoring methodology depends on the monitoring methodology applied

- ✓ Calculation-based methodologies
- ✓ Measurement-based methodologies
- ✓ Specific monitoring aspects such as monitoring of biogas injected in the natural gas grid
- ✓ Implementation of biomass and other renewable fuels procedures



Verifier's checks on calculation methods

New MRR rules on zero-rating have an impact on how a verifier checks the application of monitoring methodology

- ✓ it is important for the verifier to check the applicable zero-rated and non-zero rated fraction as this has an impact on monitoring and reporting of emissions (memo-items)
- ✓ Zero-rating is not mandatory but if renewable fuels are zero-rated certain conditions have to be met and the verifier needs to check whether these conditions are applied
- ✓ The verifier needs to check the operator's evidence that the biomass fuel, RFNBO/RCF and SLCF meet the applicable REDII criteria where zero-rating is applied

Relevant to consider for the application of the calculated based methodology

- ✓ The percentage of biomass in the fuel (pure biomass or mixed fuel)
- ✓ Applicable tier which determines the applicable method (e.g. default values or analysis)
- ✓ Applicability of an Article 30 REDII mass balance to determine biomass fraction or the application of other methods (e.g. sampling/analysis)



Verifier's checks on calculation methods

Method	Examples of verifier's check
Quantity of renewable fuel	Normal checks on determination of activity data (Section 3.3 KGN li.3 on process analysis)
Sampling/ analysis of biomass fraction	Normal checks regarding sampling and evidence of accredited or non-accredited labs (see section 3.3 KGN li.3 on process analysis and 3.1, 3.2 and 3.10 FAQ)
Default value	Correct application of default values
Article 30 REDII mass balance for biomass, RNFBO/RCF &SLCF	The verifier checks whether: <ul style="list-style-type: none"> • Zero-rated biomass fuel is identical to total biomass fraction • Application of mass balance • Evidence of compliance with REDII criteria (for RNFBO/RCF and SLCF evidence in principle obtained through Union database or certification) • Whether evidence covers all of the batches of renewable fuels



Verifier's checks on calculation methods

When biogas is injected into the natural gas grid and purchased by the operator connected to the same grid, the operator may report that purchased amount of biogas as consumed within its installation provided certain conditions are met

The verifier checks whether these conditions have been met

- ✓ Cross checks between biogas quantity and the purchase records
- ✓ Operator's evidence that there is no double counting (check will be simplified if Union data base is used to provide that evidence)
- ✓ Producer and consumer are connected to the same gas grid (as approved in the MP)
- ✓ Evidence of compliance with REDII criteria

Similar approach is followed if RNFBO/RCF is injected in the natural gas grid



Verifier's checks on CEMS

Monitoring aspect	Examples of verifier's checks
Checking data flow	Checks on location of stacks/ducts and CEMS; process types and variations; transfer of metering readings; emission points; calculation and aggregation of data (section 6.1 Guidance Document 7 on CEMS)
Checking QALs and AST	Checks on the correct application of QALs and AST (section 6.2 Guidance Document 7 on CEMS)
CEMS related procedures	Normal checks on establishment and implementation of procedures (see section 6.3 Guidance Document 7 on CEMS)
Data verification & calculations	Specific checks such as checking application of standards. Corroborative calculation, input data etc. (see section 6.4 Guidance Document 7 on CEMS)
Biomass related Issues	<p>Two situations can occur:</p> <ul style="list-style-type: none"> • REDII criteria are not applicable or 100% biomass is zero-rated → the verifier checks applicability of REDII criteria and whether the zero-rated biomass is a 100% biomass • Mixed fuels → the verifier checks <ul style="list-style-type: none"> ✓ whether the correct amount of zero-rated biomass/ RFNBO/RCF fraction is subtracted from the total emissions measured by CEMS ✓ There is no double counting and the calculation method is applied correctly in line with the approved monitoring plan

Verifier's checks on procedures

The operator has to establish procedures for determining quantity of biomass, RFNBO/RCF and SLCF and ensuring compliance with REDII criteria

The verifier must check whether these procedures

- ✓ are established, properly documented and maintained;
- ✓ contain the information recorded as described in the approved MP and MRR;
- ✓ have been correctly implemented and is up to date;
- ✓ are applied throughout the reporting year;
- ✓ are effective to mitigate the inherent and control risks.

Applicability of RED II criteria

The verifier must check the operator's evidence that

- ✓ Biomass fuels complies with sustainability and GHG savings criteria laid down in Article 29(2) to (7) and (10) RED II criteria
- ✓ RNFBO/RCF complies with GHG savings criteria laid down in Article 29a REDII
- ✓ SLCF complies with the requirements in Article 39a(4) MRR
- A first step is checking the applicability of the REDII criteria for the different batches of renewable fuels (biomass, RNFBO/RCF or SLCF)
 - ✓ The verifier checks evidence provided on the nature of the fuel to assess applicability of REDII criteria (application of decision tree)
 - ✓ The verifier checks whether evidence of compliance with REDII criteria is correctly attributed to different batches of renewable fuel
 - ✓ The verifier checks procedures that monitor the batches of renewable fuel and specify which criteria are applicable.



Compliance with RED II criteria

There are several approaches to demonstrate compliance with REDII criteria

- ✓ Union Database → not applicable for solid biomass
- ✓ National Database linked with UDB in accordance with Article 31a(5) REDII
- ✓ Voluntary (Commission recognised) schemes
- ✓ National schemes
- ✓ Operator's self-evidence

Biomass fuels: all 3 methods
RNFBO/RCF: certification schemes/ UDB
SLCF: certification schemes/ UDB

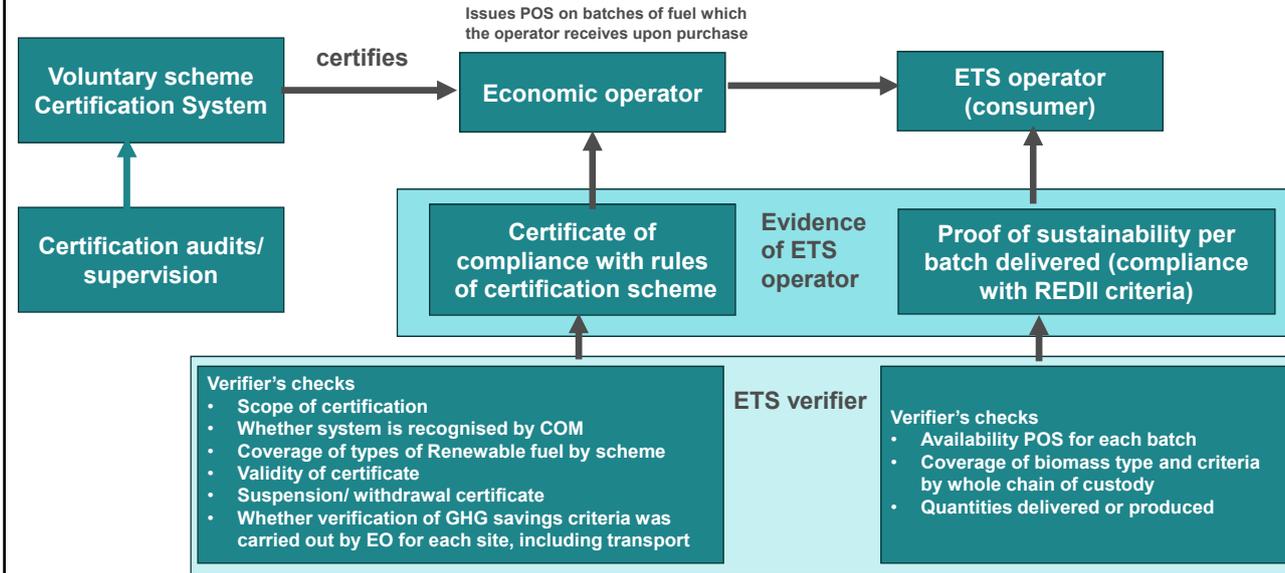
The approach used to demonstrate compliance with REDII criteria determines

- ✓ Extent to which the verifier can rely on scheme's certificates and audited information
- ✓ The checks that the EU ETS verifier carried out on the schemes, certificates, declarations and evidence

Union Database facilitates the compliance check with sustainability and GHG savings criteria → verifier may need to request the operator for access to UDB



Evidence in voluntary CION scheme



Example of POS

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

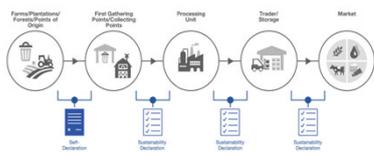


Figure 1: Step-by-Step Traceability of Sustainability Characteristics through Sustainability Declarations
© ISCC System GmbH

REDcert POS (Proof of Sustainability)

General Information

- Type of Product: Biofuel
- Type of Raw Material: Rapeseed/canola
- Country of Origin (of the raw material): France
- Quantity: 100,000 Mt
- Energy content (MJ): 3,700,000 MJ
- EU RED Compliant material: Yes
- ISCC Compliant material (volunt): Yes

2. Scope of certification of raw material

- The raw material complies with the relevant sustainability criteria according to A4:29 (2) - (7) RED II? Yes No
- The agricultural biomass was cultivated as intermediate crop (if applicable)? Yes No
- The agricultural biomass additionally fulfils the measures for low LUC 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): 44.7

GHG emission savings ⁽¹⁾	Biomass fuels for the production of useful heat, as well as for the production of energy for heating and/or cooling
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	64.6% Biomass fuels for the production of useful heat, in which a direct physical substitution of coal can be demonstrated

Date when the final bioliquid, biogas or biomass producer started operation: 03.10.12



National scheme

National scheme

- Type of evidence and checks depend on the requirements in the national scheme but in principle similar checks need to be carried out
- Additional checks by the ETS verifier include:
 - ✓ checks what certification evidence is required in the national scheme and what information is provided to the ETS operator
 - ✓ checks whether the certificate, statement or other form of evidence is consistent with the rules of the national scheme
 - ✓ where a registry is in place covering this evidence of compliance with REDII criteria, a cross check is needed on information in the registry and the statement/certificate
 - ✓ scope and results of audits performed under the national scheme (e.g. the statements, non-conformities, level of assurance applied)
 - ✓ whether the audit and certificate/statement covers the mass balance/ chain of custody
 - ✓ whether REDII auditor is accredited/certified and qualified



Operator's self evidence

- The ETS operator collects POS by providing evidence that each batch of biomass complies with REDII criteria and carries out the GHG calculations in relation to GHG savings criteria
- The evidence must be audited by an independent and competent auditor

Examples of checks on POS evidence from ETS operator

- Whether evidence for the different batches of fuel covers the full chain of custody and mass balance
- Whether POS relate to the appropriate batches (cross checking batch and delivery numbers)
- Quantities of biomass delivered or produced
- Whether mass balance is complete, correct and consistent and balances over the specified time period
- Consistency of weight basis over the whole mass balance if solid biomass is concerned

Examples of checks on audit evidence

- Whether appropriate chain of custody audit has been carried out by an independent auditor
- Whether auditor is accredited/certified and qualified
- Scope and results of the auditor (e.g. level of assurance, standards, statements, non-conformities, inclusion of full chain of custody)
- Reference to evidence in audit report
- Consistency audit report with requirements in rules
- Whether GHG calculations have been checked & confirmed as correct – evidence demonstrates checks on formulae, conversions, default value, supporting evidence etc.

What if evidence is not complete?

- If the verifier identifies that the evidence or POS is not complete and does not cover all batches of renewable fuel, the ETS verifier:
 - ✓ Informs the ETS operator and request it to provide additional evidence on parts that there are missing
 - ✓ Additional evidence could be certificates or POS under other voluntary or national schemes or additional evidence that is collected by the operator itself
 - ✓ The evidence must have been audited by a qualified and competent auditor

An ETS verifier could perform such a separate REDII audit provided:

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

Commission

Additional issues on RFNBO/RCF/SLCF

RFNBO/RCF

- Evidence of compliance with GHG savings criteria listed in Article 29a REDII will in principle be obtained through voluntary certification REDII schemes or UDB/national database in accordance with Article 31a REDII

SLCF

- The verifier must check:
 - ✓ Whether carbon content of SLCF has been subject to surrendering allowances under EU ETS Directive
 - ✓ Where the captured carbon is zero-rated according to the MRR, whether the evidence complies with GHG savings criteria listed in Article 29a(3) REDII
- Evidence of compliance of SLCF with GHG savings criteria will in principle be obtained through voluntary certification REDII schemes or UDB/ national database in accordance with Article 31a REDII

Verifier's reporting

Normal reporting requirements in Article 27 AVR apply

- If the ETS verifier identified a non-conformity or non-compliance with the MRR (e.g. with respect to demonstrating compliance with REDII criteria or application of monitoring methodology), the verifier will raise this with the operator
- The operator must correct this and if not corrected the verifier assesses the material impact on the reported emission data
- A material issue leads to the decision that the emission report cannot be verified as satisfactory in accordance with Article 27(1) AVR
- If the issues are not corrected before issuing the verification report, the verifier must report the non-conformities and non-compliance issues in the verification report



Next steps

- AVR is currently being revised to clarify the verifier's role in checking compliance of RFNBO/RCF and SLCF with REDII criteria and the new MRR
- New rules are relevant for the verification of 2024 data
- KGN II.3 will be updated to clarify the new rules
- GD III on verification of EU ETS aviation will be updated to clarify the role of EU ETS verifier in assessing compliance with the new requirements in Article 53a to 54c MRR

**Close alignment with MRR Guidance Document 1 and 3
Planned updates of guidance expected for the beginning of 2025**



Thank you for your attention

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Union Database for Biofuels

Main concept & State of play

Galina GENTCHEV

European Commission, DG ENER

Background

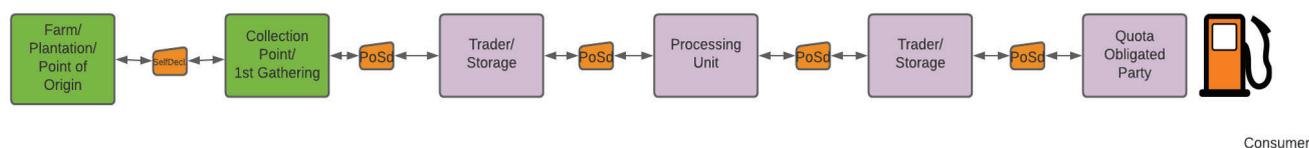
- **Legal Basis:** new article 31(a) of the revised Renewable Energy Directive (RED II) entered into force in November 2023;
- **Scoping study for the Union database (UDB)** by Navigant on behalf of European Commission: starting point of our reflection for the development of the UDB
- **Finalisation of the UDB concept**, based on the options & recommendations in the scoping study and further fact-finding by the by ENER/ IT team of the European Commission
- **Implementing Act on sustainability certification rules for voluntary schemes:** Support the development of the UDB by stipulating legal obligations for economic operators, certification bodies, voluntary schemes and member states in accordance with the RED II obligations;
- **New Delegated Act in preparation** to clarify implementation and responsibilities to ensure traceability of raw materials through UDB (currently published for public feedback).

Objective(s) of Union Database for Biofuels (UDB)

- Ensure traceability of consignments of fuels and the raw materials to bring about transparency and mitigate the risks of irregularities and fraud in the supply chain.
- Digitize the paper trail of trades in the market and provide ability to trace the fuel back to the Point of Origin of the raw material.
- Host the metadata of all the certificates issued by certification schemes.
- Digitize proof of sustainability with unique reference PoS Identifier (per trade or Batch) generated by UDB.
- Determine the Total GHG emissions up to any point in the value chain- transparency to the buyer.
- Verify the validity of certificates & PoS ID.
- Support auditing/ certification by verifying the accounting of raw materials/fuels (implementation of the mass balancing rules).
- Support National Authorities & EC for annual reporting on renewable energy consumption.



Traceability of liquid fuels supply chain



Registering an entity

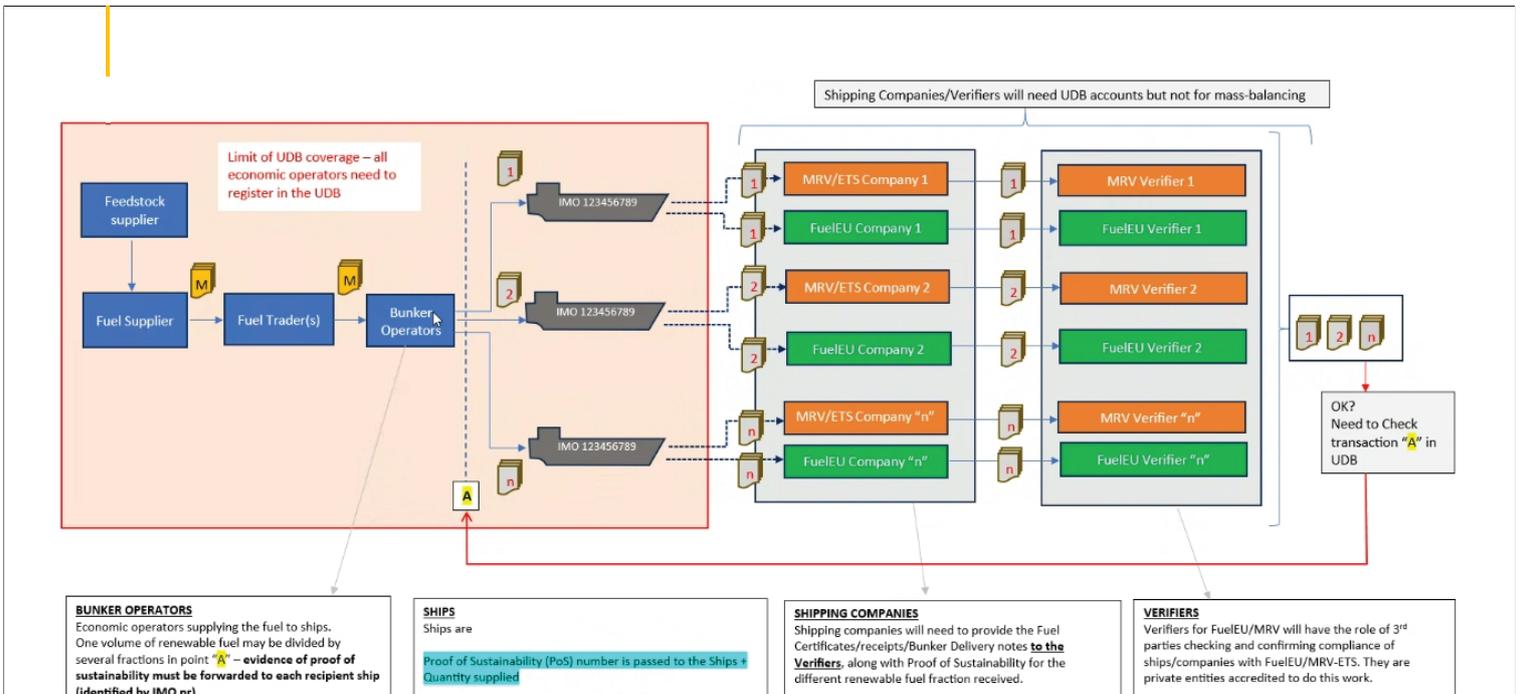
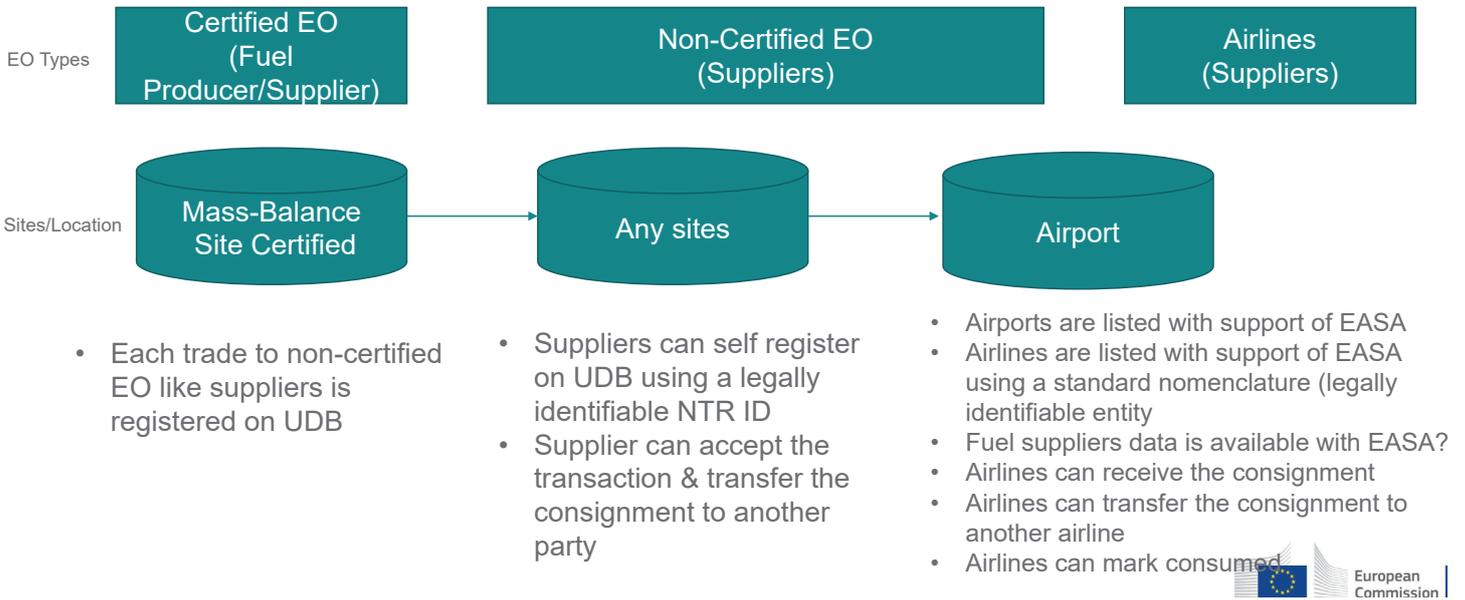
- Each economic operator who is certified and has a valid certificate issued by a certification body.
- Voluntary Scheme / Certification body is responsible to send accurate Organisation and Certificate information to UDB on timely basis.
- Each economic operator will have their entity registered on UDB based on certificate validity.
- Each EO has the option to use either the online UDB application or system to system connectors to send their trade details to UDB.

Reporting trade transactions

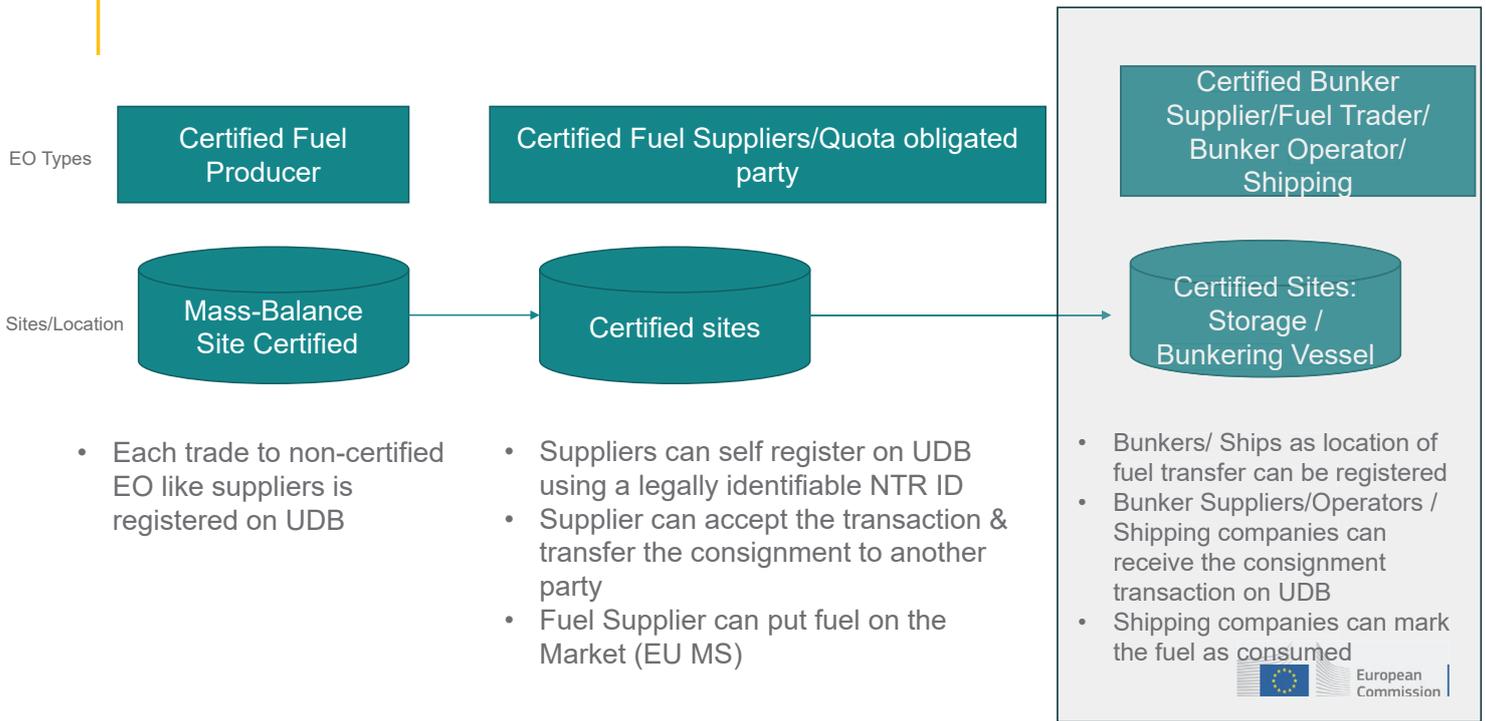
- Farmers trades are reported by Collection point (as a buyer).
- Each trade is associated with a unique PoS identifier per trade/batch with GHG, Quantity & Point of Origin.
- A unique PoS ID is generated at each subsequent points in value chain that has a snapshot of all batches (mixed) i.e. link to previous PoS ID.
- Each seller reports his trade to UDB (Online or via 3rd party DB).
- Buyer has the option to reject a trade with a reason.
- Transaction corrections are allowed within a certain time frame.



Aviation Sector – Extended UDB Design

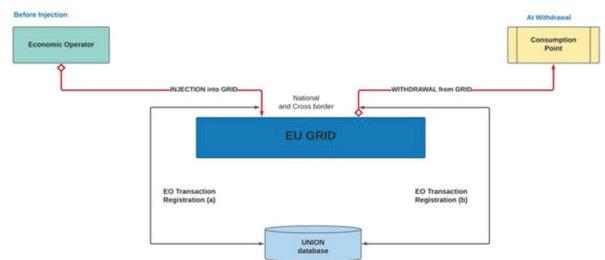


Martime Sector – Extended UDB Design until Consumption point (Shipping Company)



Concept of Union Database (UDB) for gaseous fuels

- EU Grid is a single logistical facility from a mass-balance perspective
- Local grids- subject to separate mass-balancing.
- Any trades between grids will be reported to UDB as a trade transaction.
- PoS within the grid will be transferred or monitored without the need for traceability.



Union Database Roadmap

2024

October: Registration of raw materials by 1st gathering/ collecting points;
November : UDB to cover Gas supply chain;
December: Aviation reporting of fuel put on market.

2026

Q2: Maritime Phase 2: Fuel consumed by Bunkers.

Q1: Aviation: Reporting of fuel put in airport;
Q2: Maritime: Fuel put on market.

2025

Thank you

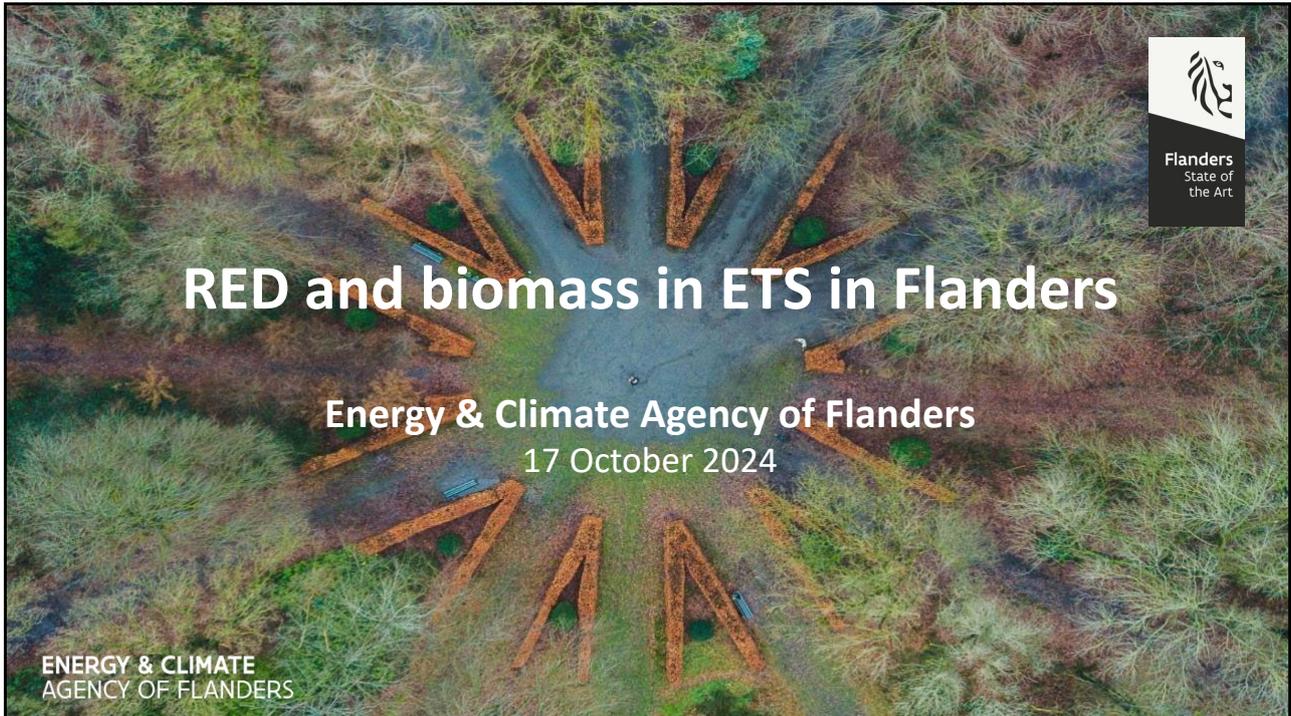


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RED and biomass in ETS in Flanders

- ▶ Biomass use under ETS in Flanders
- ▶ REDII for ETS in Flanders
- ▶ REDIII

Biomass use under ETS in Flanders

- ▶ 40/200 fixed installations use biomass

- 80% of these installations use the exception of “**installation started operation before 2021**” for solid or gaseous biomass

- => in practice only very few installations in Flanders need to have their biomass certified now

- ▶ No experience with RFNBO/RCF/SLCF

- ▶ Biomass use under ETS in Flanders

- ▶ **REDII for ETS in Flanders**

- Current implementation

- Biomethane injected in the grid

- Lessons learned

- ▶ REDIII

REDII for ETS in Flanders

Current implementation

▶ Proof of compliance with REDII in Flanders

- Accepting only **Voluntary Schemes** as proof for REDII criteria
 - × By means of national scheme – **not accepted in FL**
 - × By providing all relevant evidence and GHG calculations – **not accepted in FL**
- FL currently does not require Voluntary Schemes for the classification of biomass
 - Could be useful for borderline cases, but currently not used
 - Experience from other MS that use Voluntary Schemes for the classification of biomass?

REDII for ETS in Flanders

Biomethane injected in the grid

- Courtesy translation of requirements in FL, see [here](#)
- **Purchase records** of equivalent energy content
- Demonstration that x TJ of biomethane **injected and purchased** in year of AER
- **PoS** for x TJ of biomethane
- **Cancellation statement of GO** with NIMs ID in cancellation remarks
 - Ex-domain cancellation for biomethane from outside Flanders
 - Only accepting MS with issuing body for GO Green Gas

REDII for ETS in Flanders

lessons learned

▶ REDII compliance still **difficult** topic for our operators

- **Market still evolving**, not every supplier completely up-to-speed with REDII
 - F.e.: difference between certification and PoS
- Not always easy to **find the right certification scheme**
- Certification takes **time**
- Now: only handful of installations need to demonstrate REDII compliance. However, if everyone wants certification at the same time => **bottleneck!**
 - Also, not a lot of local auditors in BE

REDII for ETS in Flanders

lessons learned

▶ Not all operators up-to-speed with REDII

- What is the **source** of the biomass?
- Is it really a **REDII** Voluntary Scheme?
 - F.e. ISCC-EU vs ISCC
- Is the whole chain certified?
 - × Not all schemes cover the combustion of the biomass fuel
 - × Not all schemes cover the point of origin for GHG calculation (might be an issue for some waste streams)
- ...
- **Currently often lot of bilateral contact**

REDII for ETS in Flanders

lessons learned

▶ Possible different treatment of biomethane across MS

- F.e. differences in the requirements of cancellation of GO's
 - Risk with double counting if MS does not cancel GO if used for ETS! (One GO could potentially be used in multiple MS?)
 - Current idea of EU-ETS Eligibility Tag instead of cancellation of GO?
 - UDB seems (at least part of) the answer, current procedures will have to be adapted

▶ Biomass use under ETS in Flanders

▶ REDII for ETS in Flanders

- Current implementation
- Biomethane injected in the grid
- Lessons learned

▶ REDIII?

REDIII?

▶ Many installations use the exception of “installation started operation before 2021”

→ risk of bottleneck for certification in 2026!

▶ Open questions regarding REDIII:

→ Are certification schemes recognized by the European Commission **ready for REDIII?**

→ Are the certification schemes aware of the **risk of a bottleneck in 2025-2026** if many installations will need to get certified?

→ Some **certification schemes provide classification** as part of their services, do other MS have **experience** with this? And is this **more relevant for REDIII?**



MORE INFORMATION?

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ENERGY & CLIMATE
AGENCY OF FLANDERS

12

MS case studies Experiences on RED-II-Implementation (biomass)

Rebeca Sahagún Martínez

DEHSt V 3.2 Department of Chemical Industry and Industrial Combustion Installations

EU ETS Compliance Forum training event
17 October 2024



National RED II implementation in Germany

- MRR sets the general legal framework for the application of the RED criteria in emissions trading
- 3-part implementation:

1. MP

+ description of source stream

+ procedure according to Annex 1 number 1.8 MRR

2. AER

+ biomass fraction of total carbon in %

+ sustainable biomass fraction of total carbon in %

+ preliminary EF

3. Database Nabisy (based on national regulation)

+ participation in a certification system

+ issuing proofs of sustainability (PoS)

1. Information on biomass in the monitoring plan

- For each biomass source stream used for energy purposes the operator must submit a description of the process on how he provides evidence of compliance with the RED II criteria in the annual emissions report.
- In MP the operator must provide the following information:
 - Biomass type
 - RED II biomass category
 - If applicable: procedure for determining the amount of fuel to the fossil fraction, sustainable and non-sustainable biomass fraction
 - If applicable: procedure for determining the amount of fuel to the material and energetic use
 - Date of first use of biomass in the installation
 - Applicable RED II criteria
 - Name of the certification system used

2. Information on biomass in the AER

- For each biomass source stream, the operator must provide the following information in the AER:
 - Non-sustainable biomass fraction and fraction of sustainable biomass in total carbon in %
 - The preliminary emission factor, which refers to the entire source stream (fossil and zero-rated fraction).
 - A list with the identifiers of the underlying PoS in Nabisy

3. Information on sustainability in the national database Nabisy

- National legislation and regulations on sustainability and on emissions trading specify requirements on PoS permitted in the annual emissions reporting => only PoS from the state database Nabisy.
- In Germany, PoS are issued and transferred exclusively electronically in the state database Nabisy. Competent authority = Federal Office for Agriculture and Food
- Requirements for access to the database for all economic operators along the supply chain: participation in a certification system and a current certification in the area of RED
- PoS from the Nabisy database is generally not submitted individually with the AER => the operator lists the PoS-ID of PoS submitted for each source stream for the reporting year in a document and submits this list with the AER. PoS must only be submitted in individual cases if requested by DEHSt.

3. Information on sustainability in the national database Nabisy

- The producer of the biomass fuel or ETS operator must provide the following information in the Nabisy database:
 - Type of biomass
 - Fuel quantity
 - Country of cultivation/ country of origin
 - Delivery details (delivery date, place of transfer,...)
 - Recipient account in Nabisy
 - Information on the use of the total default value or on the individual parts of the GHG formula, if there is an obligation to provide GHG information
- Parallel use of the UDB: Recognition of PoS from the UDB will be regulated by a national regulation

4. Challenges regarding sustainability certification of RFNBOs/RCFs

- The EU-COM has not yet recognised a certification system.
 - No certification bodies have yet been recognised in Germany.
 - National database (≠ Nabisy) is still under construction.
 - UDB may provide PoS earlier, but probably not for the 2024 reporting year.
 - National regulation on requirements for the PoS is still pending.
- It is not clear with which evidence the zero-rated fraction can be recognised for the 2024 reporting year; according to COM, there should be recognition with low requirements => DEHSt is in coordination with the ministry; from DEHSt's point of view, a ministerial instruction would be needed



Thank you for your attention!

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This presentation is based on a speech held by the German Emissions Trading Authority (DEHSt) and is not clear for publication. Check against delivery. References and quotations from the presentation must at all times be approved in written form by the DEHSt.





Lukas Jensen - DEA
EU ETS Compliance Forum Training event
17-18-2024



Danish implementation of RED-II



OVERVIEW OF BIOMASS INSTALLATIONS IN DENMARK



Total number of stationary installations in Denmark: **289**



Installations using biomass source streams: **93**



Installations covered by national RE-law: **51**



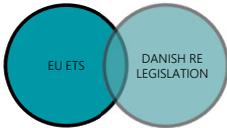
Installations using RFNBO/RCF source streams: **0**



Total number of waste plants in Denmark: **18**



OVERLAPPING RE-CRITERIA



INSTALLATION COVERED BY EU ETS

- Must comply with Directive 2003/87/EC and the MRR.
- Must at least comply with the minimum requirements of the RED-II directive.

INSTALLATION COVERED BY DANISH RE-LEGISLATION

- Must comply with the Danish legislation.
- The criteria introduced in the RE-legislation can be stricter than those in the RED-II directive

INSTALLATION COVERED BY BOTH EU ETS AND DK LEGISLATION

- Must comply with the Danish legislation.



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HOW TO COMPLY WITH RED-II IN DENMARK?

VOLUNTARY SCHEMES

- Operator uses certified biomass or biomass from a certified supplier
- PoS is verified during ETS audit

RE-VERIFICATION REPORTS (DANISH RE-LAW)

- Compliance with the national RE-law requires separate RE-verification
- The RE-verification report is made available to the ETS-verifier

OPERATORS PROVIDE EVIDENCE

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



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RED-II CHALLENGES

- Matching deadlines for ETS and national RE reporting
- Proof of national RE-compliance must be available when ETS audits are carried out
- No voluntary schemes for RFNBO's/RCF's or SLCF's yet



Biogas from the gas grid



- Biomethane is a separate source stream in the MP - only usable if the operator bought valid GO's
- 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 and PoS's
- Most (if not all) biomethane producers in Denmark are certified by voluntary schemes

