

EU-China Dialogue and Cooperation on ETS-related Policies and Measures 中欧碳市场政策对话与合作项目

**TtT Intensive Phase (Day 3):
Overview of MRV of alternative fuels**



17/09/2025



Funded by the
European Union
项目由欧盟资助



Implemented by:
项目执行方:



Use of alternative fuels is increasing in EU

Alternative fuels are fuels with at least a biomass share (e.g. waste with biomass fractions)

Many GHG accounting standards consider biomass to have zero CO₂ emissions but this is only valid where the biomass is produced sustainably

The EU ETS and other EU legislation therefore includes specific provisions to ensure the sustainability of biomass (e.g. defining sustainability and greenhouse gas criteria that biomass must meet in order to claim zero CO₂ emissions from biomass)

Operators of installations in the EU ETS can only use an emission factor of zero if these sustainability and greenhouse gas criteria have been met. Otherwise, they have to regard the biomass as fossil fuel and determine the biomass emissions as if it were fossil emissions

Definitions of biomass

The definitions of biomass are similar in all EU legislation to ensure consistency across policy areas

'biomass' means the biodegradable fraction of products, waste and residues from biological origin from agriculture, including vegetal and animal substances, from forestry and related industries, including fisheries and aquaculture, as well as the biodegradable fraction of waste, including industrial and municipal waste of biological origin (Art 3(21) MRR)

'biomass fuels' means gaseous and solid fuels produced from biomass; (Art 3(21a) MRR)

'biogas' means gaseous fuels produced from biomass; (Art 3(21b) MRR)

'bioliquids' means liquid fuel for energy purposes other than for transport, including electricity and heating and cooling, produced from biomass (Art 3(22) MRR)

'biofuels' means liquid fuels for transport produced from biomass (Art 3(23) MRR) → aviation

Biomass can be pure biomass but also blended and mixed with fossil fuels



Biomass as source streams

Pure biomass: emissions can be zero rated if applicable sustainability or greenhouse gas savings criteria are applied

Mixed fuels consisting of:

- **Biomass that meets the applicable sustainability and greenhouse gas savings criteria (the biomass content is a fraction of the mixed fuel stream)**
- **Biomass that does not meet the applicable criteria (the biomass fraction (BF) must be determined according to the required tier)**

- **Specific rules apply to the determination of the emissions factor of a mixed fuel in the calculation based methodology ($EF = EF_{pre} \times (1 - BF)$) (EF= emission factor)**
- **For CEMS specific rules apply to determine the biomass part in mixed fuels**

Alignment with other EU legislation

The sustainability and greenhouse gas savings criteria are included in the Renewable Energy Directive (<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02018L2001-20240716>)

The criteria applicable to biomass fuels are specified in Article 29 of the Renewable Energy Directive

In the EU ETS an emission factor of zero can be used for solid gaseous and liquid biomass fuels (the emissions can be zero rated) if the sustainability or greenhouse gas savings criteria listed in Article 29(2) – (7) and (10) of the Renewable Energy Directive have been met (Article 38(5) MRR)

Application of sustainability criteria

- Sustainability and greenhouse gas savings criteria are not applicable to all biomass fuels. For waste for example only greenhouse gas savings criteria apply
 - ✓ If the sustainability and greenhouse gas savings criteria are not applicable then the biomass can also be zero rated
- There are different ways in demonstrating compliance with sustainability and greenhouse gas savings criteria (e.g. Commission recognised schemes, national schemes, own evidence)
- Evidence includes proof of sustainability issued by a third party that is qualified to do so and undergoes regular Renewable Energy Audits according to harmonised standards and EU legislation
- Operators are required to monitor and report zero-rated biomass and non-zero rated biomass (i.e. not meeting the REDII criteria) separately according to the MRR and report this separately as memo-items in the emission report

Further guidance

Guidance is provided by the European Commission consisting of a decision tree when criteria apply and how compliance with these criteria can be demonstrated

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

https://climate.ec.europa.eu/document/download/2289952b-4d59-494c-8c49-c0a559c403d6_en?filename=gd3_biomass_issues_en.pdf

Thank you for your attention!

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