

# **TECHNICAL GUIDANCE ON SUPPORTING DOCUMENTATION REQUIRED FOR ALTERNATIVE AVIATION FUELS (ZERO RATING/FEETS) CLAIMS FOR AVIATION IN THE EU ETS**

UPDATED VERSION, November 2024

## DISCLAIMER

This guidance is intended to help in the monitoring and reporting of the use of alternative aviation fuels in aviation activities pursuant to the EU Emissions Trading System. It has been prepared primarily for the benefit of aircraft operators that wish to claim the use of alternative aviation fuels for aviation in their Annual Emissions Report under the EU ETS.

**This guidance is not legally binding. Any authoritative reading or interpretation of the law should only be derived from relevant EU and national legislation. Where this guidance may contain any information that is contradictory to the legal reading or interpretation of applicable legislation, the relevant legislation shall have precedence over this guidance.**

If in any doubt about any of the contents of this guidance, users referring to this guidance should always contact the competent authority of the relevant administering Member State.

The guidance was prepared by experts from competent authorities of Member States, led and coordinated by SENASA (Spain), and under the auspices of the Compliance Forum Task Force Aviation.

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22 Nov 2022		Endorsed by TF 22 Nov 2022
30 Jan 2023	Published	Revised version. Minor rewordings (disclaimer and point 2) Endorsed by TF 27/01/2023
19/06/2024	Published	Specification regarding evidences for demonstrating compliance with sustainability and eligibility provisions Endorsed by TF 19/06/2024
26/11/2024	Published	Applicability broadened beyond biofuels and for the consideration of fuels eligible for ETS support (FEETS).

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## 1. Glossary

**This glossary is provided for easy reading only. For official definitions please refer to the applicable legislation.**

<b>AER</b>	EU ETS Annual Emissions Report (for AO).
<b>AO</b>	Aircraft operator, in the EU ETS context.
<b>Alternative aviation fuels</b>	Neat aviation fuels containing carbon other than stemming from the neat fossil fuels listed in Table 1 of Annex III to MRR.
<b>Batch</b>	An amount of fuel or material representatively sampled and characterised, and transferred as one shipment or continuously over a specific period. As example, and for neat fuels, the PoS/PoC unique identifier can be used to identify a unique batch.
<b>Biofuel</b>	Biomass derived (aviation) fuel, as per the definition in Directive (EU) 2018/2001 (RED).
<b>CA</b>	Competent Authority, in the EU ETS context.
<b>EU ETS</b>	European Union Emissions Trading System, understood as the system established by Directive 2003/87/EG and including implementing legal instruments of the European Union and Member States.
<b>Fuels Eligible for ETS-financed Support (FEETS)</b>	Aviation fuels eligible for the support under Article 3c(6) of Directive 2003/87/EC. In general terms, fuels eligible to contribute to the targets in ReFuelEU Aviation (Regulation 2023/2405), of non-fossil origin, when used in commercial subsonic flights for which allowances have to be surrendered in accordance with Article 12(3) of Directive 2003/87/EC and for flights covered by Article 3c(8) of that Directive, originating from the aerodrome at which the eligible aviation fuel is supplied (that can be or not a Union Airport under ReFuelEU).
<b>GD</b>	Guidance Documents for EU ETS, referring to the series of documents provided by the Commission services to support the implementation of the monitoring, reporting and verification aspects of the EU ETS; these may be accessed at <a href="https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/monitoring-reporting-and-verification-eu-ets-emissions_en">https://climate.ec.europa.eu/eu-action/eu-emissions-trading-system-eu-ets/monitoring-reporting-and-verification-eu-ets-emissions_en</a>
<b>GHG regulation system</b>	A system, such as the EU ETS, CH ETS, UK ETS or CORSIA, or other of similar nature, that pursues the regulation of GHG emissions. It does not include voluntary GHG reduction schemes. A ‘GHG regulation system’ should not be confused with a Renewable Energy Scheme (RES).
<b>MP</b>	EU ETS Annual Emissions Monitoring Plan (for AO).
<b>MRR</b>	Monitoring and Reporting Regulation, being Commission Implementing Regulation (EU) 2018/2066, last amended by Implementing Regulation (EU) 2024/2493.

<b>PoS - Proof of Sustainability</b>	<p>A statement issued by an economic operator on the basis of a sustainability certificate (as defined in Commission Implementing Regulation 2022/996, Article 2 point 23, e.g. according to the ISCC EU or RSB EU RED certification standard). It can only be issued by certified economic operators.</p> <p>It makes it possible to proof the compliance of a specific quantity of fuels with the sustainability and reduction of greenhouse gas emissions saving criteria set out in RED II.</p>
<b>PoC – Proof of compliance</b>	<p>A statement issued by an economic operator on the basis of a sustainability certificate (as defined in Commission Implementing Regulation 2022/996, Article 2 point 23, e.g. according to the ISCC EU or RSB EU RED certification standard). It can only be issued by certified economic operators, in cases where the PoS has been requested and delivered to another entity under a different scope to an aviation GHG regulation system.</p> <p>It makes it possible to certify the compliance of a specific quantity of fuels with the sustainability and reduction of greenhouse gas emissions saving criteria set out in RED II, while stating where other claims, in different scopes or systems have been made.</p> <p>It always refers to the PoS. The issuance of a “paper” PoC is not compatible with the use of digital databases tracing the same transactions (to the AO). Where those exist, the digital recordings should prevail as unique evidence.</p>
<b>RED II</b>	Directive (EU) 2018/2001.
<b>Recycled Carbon Fuels (RCF)</b>	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.
<b>Renewable Fuels of Non-Biological Origin (RFNBO)</b>	Liquid and gaseous fuels the energy content of which is derived from renewable sources other than biomass, as e.g. renewable electricity.
<b>RES – Renewable Energy Scheme</b>	A regulated scheme to promote the supply and/or use of renewable energy. Despite the presumed GHG benefit in most cases, it should not be considered as GHG regulation system.
<b>Synthetic Low-Carbon fuels</b>	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, which meet the greenhouse gas emission reduction threshold of 70 % compared to the fossil fuel comparator for RFNBO set out in the methodology adopted according to Article 29a(3) of Directive (EU) 2018/2001, as certified in accordance with Article 9 of Directive (EU) 2024/1788. I.e. hydrogen and aviation fuels derived from nuclear electricity.
<b>Sustainability Certificate</b>	In the context of sustainability certification schemes (SCS), a certificate that is issued to an economic operator that is part of the supply chain (such a certificate is not issued to a specific batch of fuel). Sustainability certificates may be issued to farms, processing units, trading units etc.

<b>Sustainability Declaration (SD)</b>	A sustainability declaration fulfils a similar purpose as the PoS, but is issued for raw materials/feedstocks and intermediate products only (i.e. in the upstream supply chain).
<b>UDB - Union Database</b>	A database designed for tracing, at EU level and in the framework of the RED, liquid and gaseous transport fuels. At the time of publication of this guidance, work on the Union Database is still ongoing.
<b>Zero-rated fuels</b>	Biofuels, synthetic low-carbon fuels, RFNBOs or RCFs or fractions of mixed fuels or materials to the extent which comply with the criteria as specified in Article 54c of Commission Implementing Regulation (EU) 2018/2066.

## 2. Sustainability criteria and emissions savings thresholds

Where reference is made to quantities to be claimed, such reference only applies to the biofuel, synthetic low-carbon fuel, RCF or RFNBO neat fraction that can comply with, or exceeds, the **sustainability criteria and emissions savings thresholds**.

That is, for biofuels, its compliance with sustainability and GHG savings criteria provided by Article 29(2) to (7) and (10) of Directive (EU) 2018/2001. In case of RFNBO or RCF, its compliance with the GHG savings criteria in accordance with Article 29a of Directive (EU) 2018/2001 (70%). In case of synthetic low-carbon fuels, its compliance with the GHG savings criteria provided by Article 2(13) of Directive (EU) 2024/1788 on common rules for the internal markets in renewable gas and natural gas and in hydrogen (Gas Directive); and the prior surrendering of allowances under Directive 2003/87/EC for the captured carbon necessary to produce the synthetic low-carbon fuels, unless that captured carbon is zero-rated carbon as defined in Article 3(38f) of the MRR.

Therefore, an AO should identify - and prove - how much zero rated and/or eligible fuel is contained within the purchased and used fuel that they wish to claim.

In order to support compliance with the above requirements and the verification of the AER, the AO must be able to provide their chosen independent verifier with relevant information and evidence thereof. Additionally, the relevant CA may ask the AO to submit documented evidence together with the verified AER or in ulterior checks.

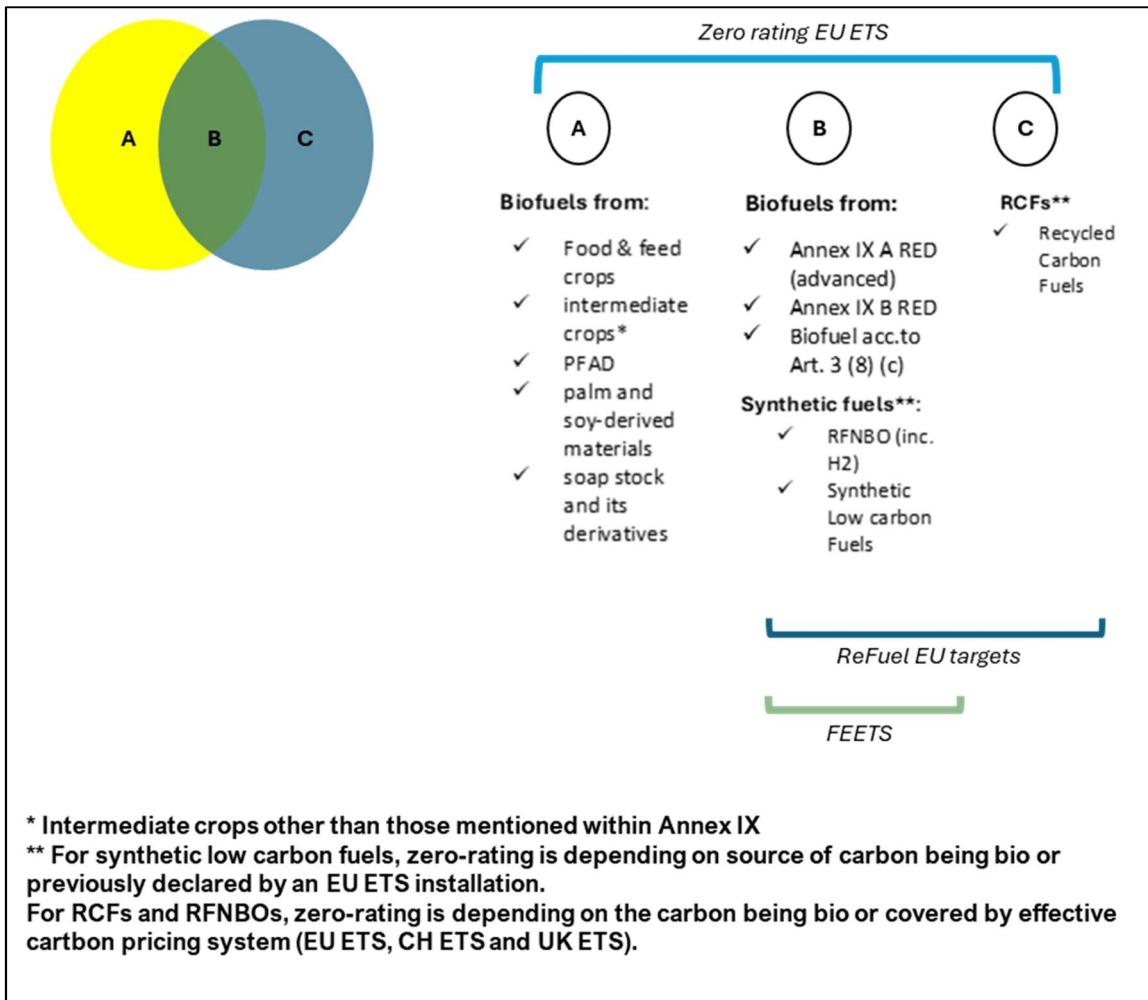


Figure 1. Different sets of zero-rated and FEETS fuels, with reference to the ReFuelEU Aviation, as for its feedstock, conversion process and origin of energy. Source: SENASA.



### 3. Documentation Requirements

Prior to any use/claim of any alternative fuels under the EU ETS, an AO shall establish, document, implement and maintain **written procedures** about how the AO is going to trace data and documentation required to support the zero-rating of fuels and include information on these procedures in its emissions monitoring plan (MP) (section 8. “Emissions Factors” in the EU MP template).

The relevant CA **may require** that this MP is approved before any claim in the AO’s emissions report AER can be done.

The aircraft operator shall monitor the amount of alternative aviation fuels used and report that amount as attributed to each flight or aerodrome pair.

An AO is only able to apply a zero-rate emission factor for zero rated fuels for aviation in its AER, if:

1. The total quantity of fuel claimed does not exceed the total fuel usage of that aircraft operator for flights with allowance surrender obligations under the EU ETS (i.e. the reduced scope), AND
2. The quantity of fuel accounted for under the EU ETS does not exceed the total quantity of fuel purchased by the AO minus the total quantity of alternative fuel sold by the AO to third parties, AND
3. In case of RFNBOs, RCFs and biofuels, those fulfil the sustainability and the greenhouse gas emissions saving criteria laid down in the RED II, including traceability requirements, AND
4. The ratio between alternative aviation fuels and fossil fuels attributed to flights aggregated per aerodrome pair does not exceed the maximum blending limit for that fuel type as certified according to a recognised international standard, such as ASTM<sup>1</sup>, AND
5. The same quantities of alternative fuel have not been accounted for in an earlier report in EU ETS, or by anyone else in another GHG regulation system.

When calculating maximum claimed quantities and ratios (i.e. points 1, 2 and 4 above), it is important to consider that, any fuel remaining in tanks after a flight and before an uplift is assumed to be 100 % fossil fuel.

Where **all** the above conditions are fulfilled and can be backed by **documented evidence**, a zero emissions factor can be applied to that(those) source stream(s) in the AER. Same conditions are applicable for eligible fuels claims (FEETS), but including in the scope also flights covered by Article 3c(8) of the ETS Directive, originating from the aerodrome at which the eligible aviation fuel is supplied (i.e. domestic flights to or from outermost regions) AND the claiming of eligible aviation fuel is only possible for commercial aircraft operator and for subsonic flights.

For the support received for FEETS, the AO must give the proper visibility to the received funding (Article 30m(1) of the ETS Directive).

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<sup>1</sup> For co-processed fuels, the blending limit would be understood as the maximum allowed ratio for the finished fuel (i.e. at the date of publication of this report 24%).

## 4. Documented evidence to be provided

The aircraft operator shall monitor the amount of alternative aviation fuels used and report that amount as attributed to each flight or aerodrome pair.

For any use/claim of any alternative fuels under the EU ETS, an AO shall keep purchase records that include the following information:

- Fuel invoice including:
  - Batch reference or reference linkable with the associated PoS or PoC;
  - Batch purchase date;
  - Mass (alternatively volume and density value);
  
- Proof of Sustainability, PoC or equivalent (see section 4.1) evidence that includes, as a minimum, the following data:
  - RED compliant Certificate reference applicable to the supplier (e.g. ISCC-EU or RSB-EU RED);
  - In case of PoC, the original PoS unique identifier;
  - Pathway (feedstock and technology, e.g. UCO – HEFA, POME-co-processing, RFNBO, RCF);
  - Place (airport) and date of delivery;
  - Amount of the batch (in normal m<sup>3</sup> or tonnes);
  - The AO included as a recipient of the batch;
  - NCV (Net Calorific Value);
  - Life cycle emissions in gCO<sub>2e</sub>/MJ of final product.
  
- If applicable, the identification of any alternative fuel batch (whole or in part) sold or transferred to a third party.

Where the alternative aviation fuels are delivered to the aircraft in physically identifiable batches, the aircraft operator shall provide evidence to the satisfaction of the CA that the alternative aviation fuel is attributed to the flight immediately following the fuel uplift of that flight. It is assumed that any fuel remaining in the tank after a flight is 100% fossil fuel and where two subsequent flights are carried out without fuel uplift in-between (“e.g. tankering”), the aircraft operator must split the said alternative fuel quantity and assign it to the two flights proportionally to the emissions from those flights calculated using the preliminary emission factor.

Where **biofuels** are physically mixed with fossil fuels and delivered to the aircraft in physically identifiable batches, the aircraft operator may carry out analyses in accordance with Articles 32 to 35 to determine the biomass fraction, on the basis of a relevant standard and the analytical methods set out in those Articles, provided that the use of that standard and those analytical methods is approved by the competent authority.

Where the aircraft operator provides evidence to the competent authority that analyses according to Articles 32-35 MRR would incur unreasonable costs are technically not feasible, the aircraft operator may base the estimation of the biofuel content on a material balance of

blending fossil fuels and biofuels purchased. If the biomass fraction was determined using the mass balance pursuant to Article 30(1) of Directive (EU) 2018/2001, no evidence for unreasonable costs or technical feasibility shall be required.

Where alternative aviation fuels cannot be physically attributed at an aerodrome to a specific flight, the aircraft operator shall attribute the fuel to its flights for which allowances have to be surrendered in accordance with Article 12(3) of Directive 2003/87/EC proportionally to the emissions from those flights departing from that aerodrome calculated using the preliminary emission factor.

In this regard, the aircraft operator must provide evidence to the satisfaction of the competent authority that the alternative aviation 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.

## 4.1. Sustainability and GHG savings criteria evidence

**In order to demonstrate that the alternative fuel meets the pertinent Sustainability Criteria and GHG savings criteria** (see section 2), an AO should **ALWAYS** provide the verifier documented evidence.

Once the Union Database is functioning, for biofuel purchased within the scope of the UDB, the **Union Database registry codes** (also known as **UDB-PoS**) is the preferred evidence. The CA may also accept equivalent registries from similar EEA national databases that track and trace sustainable biofuels<sup>2</sup> as long as those meet the mass balance requirements of RED.

In absence of the UDB, the preferred evidence is the Proof of Sustainability issued according to one of the voluntary sustainability schemes recognized by the European Commission for RED II criteria, or the linked Proof of Compliance in cases where the PoS is not available due to a prior delivery in a different scope than a Regulated GHG emissions scheme. The updated list of Voluntary Sustainability Schemes can be found at:

[https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes\\_en](https://energy.ec.europa.eu/topics/renewable-energy/bioenergy/voluntary-schemes_en)

Competent Authorities may also accept equivalent documents (or digital registries) from National Sustainability Systems or from Voluntary Sustainability Schemes (as a tracked complement to the PoS). However, if those National Sustainability Systems are not [yet] recognized by the EC, third Member States might not recognize such evidence as compliant. Hence, AOs should always check with their competent authority or with applicable national legislation, on how to provide evidence that the fuels used comply with the sustainability and GHG savings criteria.

A document different than a PoS delivered in the framework of a sustainability framework recognized either by the Competent Authority and/or by the European Commission, can only be considered equivalent if it provides equivalent guarantees regarding traceability. Examples of such equivalent documents are the official certificates or records from national databases, that link the original PoS data to the batch in a third party-controlled system, minimizing the risk of fraud or double counting. Other example of valid evidence demonstrating compliance is the PoC.

Moreover, any other evidence that could prove the fuel batch meets the sustainability and emissions savings criteria and that the fuel is RED certified can be accepted as long as those are pre-approved by the CA.

However, documents such as delivery letters or Product Transfer Documents (PTD) with no sustainability information are not sufficient on their own as they do not comply with the RED requirements and won't be able to justify the compliance with the applicable MRR requirements for claiming such fuels under the EU-ETS. AOs are encouraged to submit any other documents they may consider relevant to the assessment of the fuel zero-rating or eligibility claims.

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<sup>2</sup> As for example: CARBURE in France, Nabisy in Germany, SICBIOS in Spain.