

**COMMISSION DELEGATED REGULATION SUPPLEMENTING DIRECTIVE
2003/87/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON THE
CALCULATION OF PRICE DIFFERENCE BETWEEN ELIGIBLE FUELS AND FOSSIL
KEROSENE AND FOR THE ALLOCATION OF ALLOWANCES FOR THE USE OF
ELIGIBLE FUELS**

CONCEPT NOTE

Brussels, 23 September 2024

This document is being prepared for the purpose of discussion with the Members of the Commission expert group on climate change policy (CCEG) Aviation formation.

This concept paper represents provisional ideas and does not represent an official position of the European Commission. Only the broad categories of rules are presented below and might be subject to changes following the discussions at the relevant expert forums.

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1. Introduction

The EU is committed to reduce its greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels. With the 'Fit for 55' package, policies and measures in all sectors of the economy are introduced or strengthened.

Aviation emissions on flights in and between EEA countries as well as flights to the UK and Switzerland are covered by the EU emissions trading system (EU ETS). An important measure to reduce emissions from aviation is the use of alternative fuels, notably on medium and long-haul flights where alternative propulsion technologies and aircraft are not commercially available to date and are not expected to be so in the coming years.

The uplift of alternative fuels is incentivised by the carbon price in the EU ETS. While aircraft operators have to surrender EU allowances for the emissions caused by fossil fuels on intra-European flights, emissions stemming from renewable fuels meeting the sustainability and emissions savings criteria set out in the Renewable Energy Directive (EU) 2018/2001 (RED) or Directive (EU) 2024/1788 (Gas Directive) are rated as zero. With current EU ETS allowance prices, this represents an advantage of more than 200 EUR/tonne for these fuels. The supply of SAF to EU airports, on the other hand, is addressed by Regulation (EU) 2023/2405 (ReFuelEU Aviation) which obliges aviation fuel suppliers to supply an increasing share of sustainable aviation fuels at EU airports, as of 2025 and until 2050.

Directive (EU) 2023/958 amended Directive 2003/87/EC (the ETS Directive) including to establish a new support mechanism for uplift of eligible fuels under Article 3c(6). This mechanism is referred to as mechanism for Fuels Eligible for ETS support or FEETS support. To incentivise the early uptake of the best-performing alternative fuels in terms of emissions reduction potential and support commercial aircraft operators in using eligible fuels on routes covered by the EU ETS, the co-legislators agreed to set aside 20 million EU ETS allowances.

This concept note clarifies the detailed rules for the FEETS support mechanism that include the following rules:

1. application for free allowances by aircraft operators;
2. yearly calculation of the average price difference and its publication, including the arrangements for taking into account incentives from the price of carbon and from harmonised minimum levels of taxation on fossil fuels;
3. determination of the amount of allowances per aircraft operator and its publication.

2. Default information

The latest two amendments¹ of the Implementing Regulation (EU) 2018/2066 on Monitoring and Reporting (MRR) include rules on reporting of the FEETS. Moreover, Article 3c(6) of the ETS Directive includes many detailed rules, definitions and guiding principles that are complete and it is not necessary to include those in the upcoming delegated act. For the purpose of completeness of this concept note, those elements are included in this section.

The FEETS support is in place from 1 January 2024 until 31 December 2030 or until the reserve of 20 million allowances is exhausted².

Who can apply for the support?

All commercial operators, regardless of whether they are based in the EEA or outside the EEA, may apply for the free allowances under FEETS support, as long as they have performed flights under the EU ETS scope covered by surrender obligation and they reported emissions from those flights by the legal deadline.

For what flights can they apply?

The above aircraft operators can monitor and report the use of FEETS on the following sub-sonic flights:

- flights for which allowances have to be surrendered in accordance with Article 12(3) of Directive 2003/87/EC and
- flights covered by Article 3c(8) of that Directive (flights between an outermost region and the same Member State).

Up to 31 December 2026, this in practice means all intra-EEA flights, including all flights to/from outermost regions (both international and domestic), and flights departing from EEA to UK and to Switzerland. Article 54a of the MRR sets out the methodology for the *pro rata* attribution of emissions to routes, in line with Article 3c(6) of the Directive.

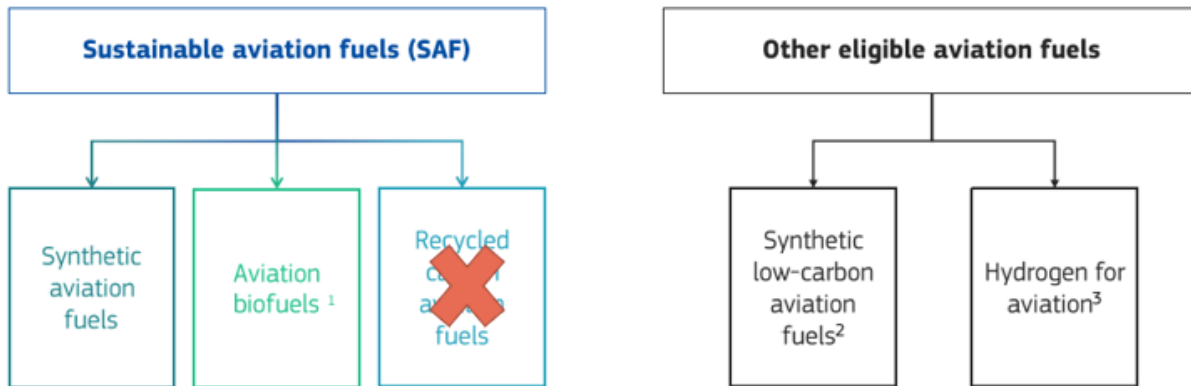
For what fuels can they apply?

The eligible fuels are advanced biofuels, hydrogen from renewable energy sources, renewable fuels of non-biological origin and other fuels that count towards reaching the minimum shares of sustainable aviation fuels as per Article 4(1) Regulation (EU) 2023/2405 (ReFuelEU Aviation), provided that these are not derived from fossil fuels.

The figure below shows the fuels eligible under ReFuelEU Aviation and whether those are also FEETS.

¹ [Commission Implementing Regulation \(EU\) 2023/2122 of 17 October 2023](#) and Commission Implementing Regulation (EU) 2024/XXXX, positively voted by the Climate [Change Committee on 29 August 2024](#)

² By 1 January 2028, the Commission will carry out an evaluation regarding the application of FEETS support. The report may be accompanied by a legislative proposal to allocate a capped and time-limited amount of allowances until 31 December 2034 to further incentivise the use of FEETS, in particular the use of renewable fuels of non-biological origin.



¹ Except for 'food and feed' and a selective exclusion of feedstock unless otherwise included in Annex IX to Directive (EU) 2018/2001

² Derived from non-fossil low-carbon hydrogen | ³ Both of renewable and non-fossil low-carbon origin

The level of direct EU ETS support (in %) received to cover the cost difference depends on the FEETS type and the uplifting location:

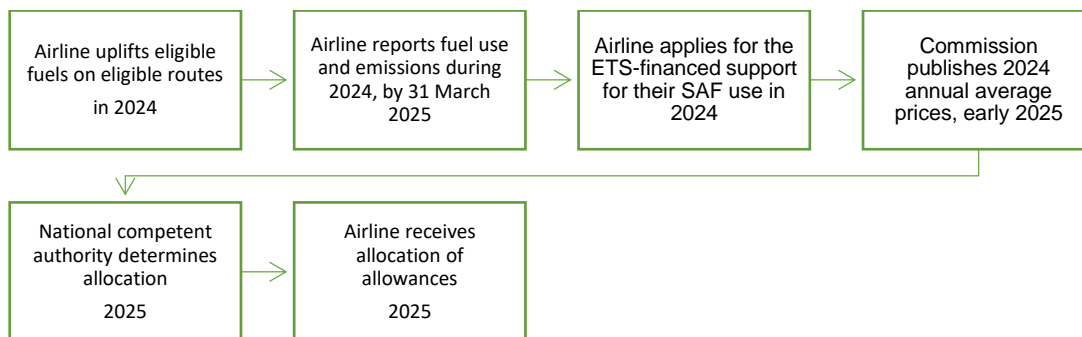
| Fuel support categories per Art. 3c(6) | Differentiated subcategories | Share of price difference covered |
|---|------------------------------------|-----------------------------------|
| Non-fossil hydrogen from renewable energy sources (non-drop-in) and advanced biofuels ³ as defined in RED | Non-fossil renewable hydrogen | 70% |
| | Advanced biofuels | |
| Renewable fuels of non-biological origin ⁴ (RFNBO) as defined in RED using carbon from Direct Air Capture (DAC) or Bioenergy Carbon Capture (BECC) | - | 95% |
| All FEETS at airports on small islands with no mainland connection, in outermost regions and non-Union airports ⁵ | - | 100% |
| FEETS other than hydrogen from renewable energy sources, advanced biofuels or RFNBOs. | Other aviation biofuels | 50% |
| | Synthetic low-carbon aviation fuel | |
| | Low-carbon hydrogen | |

³ Biofuels that are produced from the feedstock listed in Part A of Annex IX to Directive (EU) 2018/2001

⁴ Liquid and gaseous fuels the energy content of which is derived from renewable sources other than biomass.

⁵ Non-Union airports are airports located in EEA territory that do not meet the definition of 'Union airport' as defined in Article 3, point (1) of ReFuelEU Aviation. The list of Union airports is published annually on Commission website for [Mobility and Transport](#).

The default timeline, in line with the provisions of Article 3c(6) of the ETS Directive, for the example reporting year 2024, is below.



3. Application by aircraft operators

Commercial aircraft operators may apply for an allocation of allowances for FEETS used in the years 2024 to 2030. The Commission’s basic assumption, in order to minimise administrative effort for aircraft operators and Competent Authorities, is that the reporting of FEETS in the annual emissions report (AER) in accordance with the rules set out in the MRR would be considered as the application to receive the free allowances. The consideration for this assumption is that if an aircraft operator reports the verified amounts of FEETS, it is for the purpose of the application for receiving the allowances. To be noted, that zero-rating of these fuels is reported separately. For this purpose, the AER template will be modified accordingly.

Nevertheless, the possibility of opting out from FEETS support by airlines could be envisaged. This leads to two possible options:

Option 3A: Submission of verified data on FEETS usage as part of the AER would constitute application for FEETS support. This option considers there is no additional benefit for an AO to report the use of FEETS other than applying for the FEETS support.

Option 3B: Submission of verified data on FEETS usage as part of the AER will also include the explicit question (check-box) whether the operator wishes to NOT apply for FEETS support. Ultimately, this would create the possibility for an AO to report FEETS usage while choosing not to reap the benefits.

In order for the application to be valid, the AER must be submitted by the legal deadline of 31 March in accordance with Article 68 of the MRR to allow for a streamlined process together with emissions reporting and timely allocation. The allocation is granted *ex-post*, so in the year after the FEETS have been used on the eligible routes.

4. Yearly calculation of average price difference

The yearly calculation of the average price difference between FEETS and fossil kerosene is a crucial element to be defined in the detailed rules under the Delegated Regulation.

As per the ETS Directive, the price difference will be calculated using the following formula:

$$\text{Price difference} = \text{price of FEETS} - (\text{fossil kerosene price} + \text{ETS price} + \text{minimum EU-level tax on fossil kerosene})$$

All the elements will be published separately in EUR/tonne. The detailed description of each element is below.

a. Price of fossil kerosene

The price of fossil kerosene (also jet fuel or Jet A1) will be taken directly from the technical report published by the European Union Aviation Safety Agency (EASA) under Article 13 of ReFuelEU Aviation (“EASA Technical Report”). In case this report is not available by the time the Commission publishes the price differences, the price of fossil kerosene will be based on the best data available to the Commission. The price is one single price for the whole year, without any differentiation by geographical regions as this is reflected in the percentages of FEETS support.

EASA collaborates with Price Reporting Agencies (PRA)⁶, to gather data on the current state of the market. Data gathered from PRAs showed that the 2023 yearly weighted-average fossil kerosene price in the Northwest Europe hub was 816 EUR/tonne. The average price was calculated based on real market transactions in 2023.

b. Price of FEETS

It is fundamental for this delegated regulation to use appropriate FEETS reference prices. The Commission will collect the prices for FEETS fuel categories and publish those in the Official Journal in a timely manner for the previous year. The prices will be published at a minimum for all fuel categories listed in Annex A.

The prices will be determined using the following sources in descending order of preference:

1. Market prices from the EASA Technical Report
2. From reporting year 2025, the prices may be determined based on actual prices paid by aircraft operators.
3. A bottom-up minimum selling price model is applied.

⁶ S&P Global Commodity Insights (Platts), Argus Media and General Index

FEETS prices in the EASA Technical Report

Similarly, as for fossil kerosene prices, EASA will provide information on prices of fuels based on the market availability of the fuel categories, using PRA indexes.

As a result of the technology maturity and market activity, it appears that only Hydroprocessed Esters and Fatty Acids (HEFA) SAF was physically available in 2023, and based on transactions taking place in Northwest Europe (NWE) HEFA was the only traded SAF. Such HEFA SAF was mainly produced from used cooking oil (UCO) listed in Part B of Annex IX to RED and, classified as “aviation biofuel” FEETS category. Data gathered from PRAs showed that the 2023 yearly-weighted average price in 2023 was 2,768 EUR/tonne. The average price was calculated based on real market transactions in 2023.

FEETS prices determined based on actual prices paid by aircraft operators

Since for numerous FEETS categories, the market is not liquid enough to have actual reference market prices, the aircraft operators may report on their prices actually paid on confidential basis. The prices reported by aircraft operators will be taken into account under the following situations:

1. The prices are provided for FEETS category that is available on the market and reported by EASA. In this case, the prices reported by AOs will be taken into account to verify the correctness of the market values. The actual prices reported may be taken into account to recalculate the price of that FEETS category if the actual prices deviate by more than a given percentage (up or down) from the prices on the market.
 - i. Should the actual prices reported be used to calculate the average FEETS reference prices published by the Commission, that price will be used in the calculation of the price difference for all aircraft operators reporting use of that FEETS category irrespective whether they submitted actual prices or not.
2. The actual prices reported by AOs will be taken into account to calculate the FEETS price for the FEETS categories, where market price is not available.
 - i. The average FEETS prices calculated using the actual reported prices and published by the Commission will be used in the calculation of the prices difference only for those aircraft operators that submitted those prices. For other operators reporting the same fuel category, the minimum selling price will be used to calculate the difference. This is to incentivise the reporting of actual fuel prices for FEETS categories not available on the market.

In both cases, the AO actual prices will be taken into account only if certain minimum number of AOs provide the prices covering a minimum amount of total FEETS reported, under strict confidentiality in order to ensure statistical confidentiality and support representativeness.

Under situation 2, the actual prices of AOs can be used if less than 3 AOs reported the actual prices, only if those AOs submit a waiver of confidentiality for these prices as the subsequent publication of the prices may allow for the identification of the price per operator.

The actual prices may be reported by AOs directly to the Commission by 28 February each year. The reporting must fulfil the following conditions:

- Sufficient documentation must be provided, including contracts and/or invoices firmly linking the FEETS to the AO and all the airports where the FEETS was delivered and reported.
- The full amount of that FEETS category must be covered by the contracts/invoices provided, at all locations where this FEETS category is uplifted.

Minimum selling price

In case the prices for FEETS are not available on the market nor were reported directly by the AO, a bottom-up production cost estimation and minimum selling price model was developed by EASA and CLIMA consultants to provide indicative results. The production cost estimate will be available in the EASA Technical Report from which minimum selling price will be derived.

c. ETS price

The main long-term incentive arising from Directive 2003/87/EC is the zero-rating of alternative fuels that meet the defined sustainability and emissions savings criteria in accordance with the MRR. This incentive from the price of carbon should be understood as the decrease of the price gap between the zero-rated alternative fuel and fossil kerosene which is not zero-rated, effectively making the alternative fuels more attractive and raising the price of fossil kerosene to internalise climate change externalities⁷. When alternative fuels are zero-rated according to the MRR while the fossil fuels are not, this already reduces the price difference between these two fuels.

The ETS price will be taken into account in the formula when the FEETS is zero-rated, while the fossil fuel is not.

The ETS price shall be calculated to two decimal places as follows:

$$ETS\ price = fossil\ kerosene\ emissions\ factor * EUA\ price$$

Fossil kerosene emissions factor is established in the ETS Directive and MRR. It is 3.16.

The EUA average price is the weighted average price of auctions carried out in accordance with the delegated acts adopted pursuant to Article 10(4) of the ETS Directive during the previous calendar year as published on the common auction platform⁸.

For 2023, according to the auctions report⁹ on the common auction platform the average price was 83.24 EUR, therefore the ETS price incentive would be 263.04 EUR.

⁷ Internalising the externalities of climate change refers to putting a price on the impacts of pollution that are not otherwise paid for by the polluter

⁸ Currently, the [European Energy Exchange \(EEX\)](#) in Leipzig is the common auction platform.

⁹ EEX Public – [Auctions report](#)

d. Minimum EU-level tax on fossil kerosene

The Energy Taxation Directive (ETD, Directive 2003/96/EC) currently exempts aircraft fuel from excise duty (Article 14(1)). In 2021, the Commission proposed (COM/2021/563 final) to revise the ETD with effect from 2023. In this proposal the exemption from taxation for “motor fuels used in air” ends for intra-EU non-business aviation and non-pleasure flights. While this proposal has not been agreed yet, this section discusses how FEETS price differences would be affected when the revised ETD enters into force.

If agreed, fossil kerosene used on intra-EU commercial flights will be taxed after entry into force of the revised ETD. The minimum level of taxation will be aligned with fuels used for other modes of transports: EUR 10.75/GJ. This corresponds to EUR 463.86 EUR/tonne¹⁰ for fossil kerosene. This rate is indexed to inflation.

For FEETS, the fuel category will determine the level of taxation. In some cases, there is a transitional period of 10 years put in place. The increase in the minimum levels of taxation is then fixed at one tenth per year until 1 January 2033. For low-carbon fuels, the minimum level of taxation set for the first year of the transitional period shall apply until 1 January 2033. These rates are indexed to inflation.

Once the minimum levels of taxation are agreed, the difference between the taxation of fossil kerosene and FEETS will be applied as the ‘minimum EU-level tax on fossil kerosene’ in EUR/tonne.

Table 2: Minimum levels of taxation proposed for different types of eligible fuels in the proposal for a revision of the ETD (Annex I)

| <i>Fuel</i> | <i>Price at the start of the transitional period [EUR/GJ]</i> | <i>Final rate after completion of transitional period (before indexation) [EUR/GJ]</i> |
|---|---|--|
| <i>Kerosene</i> | 10.75 | 10.75 |
| <i>Gasoil</i> | 10.75 | 10.75 |
| <i>Non-sustainable biofuels</i> | 10.75 | 10.75 |
| <i>Non renewable fuels of non-biological origin</i> | 7.17 | 10.75 |
| <i>Sustainable food and feed crop biofuels</i> | 5.38 | 10.75 |
| <i>Sustainable biofuels</i> | 5.38 | 5.38 |
| <i>Low-carbon fuels</i> | 0.15 | 5.38 |
| <i>Renewable fuels of non-biological origin</i> | 0.15 | 0.15 |
| <i>Advanced sustainable biofuels and biogas</i> | 0.15 | 0.15 |

¹⁰ The energy content of aviation kerosene (Jet-A1) is approximately 43.15 Gigajoules per tonne.

5. Free allocation calculation

Competent Authorities will apply the following allocation formula to determine the amount of allowances allocated to each aircraft operator. The formula will be used separately for each category of FEETS (y), depending on the average price difference and the level of EU support. The allocation per aircraft operator will be the sum of allocation calculated for each category.

$$\text{Allocation (y)} = \frac{\text{fuel uplifted(y)} * (\text{price difference(y)}[-\text{national support(y)}]) * \text{level of direct EU ETS support(y)}}{\text{EUA price}}$$

The elements of the formula are the following:

(y) – particular category of FEETS for which the price difference was published by the Commission and that have the same level of EU support, e.g. RFNBO uplifted at airports with standard support (95%)

Allocation (y) – number of allowances allocated for the use of FEETS (y)

Fuel uplifted (y) – amount of neat FEETS(y) as reported in the AER [tonnes]

Price difference (y) – the price difference between the FEETS (y) and fossil fuel, taking into account incentives from the price of carbon and harmonised minimum levels of taxation as published by the Commission in the Official Journal of the European Union (see Section 4) [EUR/tonne]

[National support scheme (y) – the national support already granted for the uplift of that FEETS (y) [EUR/tonne]]

Level of direct EU ETS support (y) – the share of the price difference to be covered depending on the FEETS category and the geographical location of the uplift [0-1]

EUA price – the average price of an EU allowance as published by the Commission in the Official Journal of the European Union, (see Section 4) [EUR/EUA]

As noted, the monitoring and reporting of the fuel uplifted is covered by the MRR. The price difference calculation is explored in Section 4, as well as the EUA price. The level of direct EU ETS support is specified directly in the Article 3c(6) of the ETS Directive (see also Section 2) .

The element of the national support and the final allocation procedure are detailed below.

e. National support

*“The allocation of allowances under this paragraph **may take into account** possible support from other schemes at national level.”*

The Directive specifies that the possible support from other schemes at national level may be taken into account. This provision would ensure that there is no double-reward for the usage of these fuels. For example, where a national support scheme at an airport in MS X already lowers the price of certain fuels

or where AO is eligible to apply for financial support connected to the uplift of fuels at that airport or others in the Member State. It is important to note, that any AO may uplift FEETS at an airport as such national schemes are unlikely to be limited only to AOs that are administrated by the MS where the airport is located.

Benefits of taking into account national support schemes:

- No double-reward: not taking into account national support schemes may result in an overcompensation for the aircraft operator.

Risks and negative impacts of taking into account national support schemes:

- Clear definition of 'national scheme' must be established, where the lines may be blurred between support by State directly or by an airport managed by a state-owned company.
- In practical terms, this means that the Commission would have to collect annually information on national schemes across MS, so that all Competent Authorities take the schemes into account when calculating the final allocation per aircraft operator in the same manner.
- Prohibiting the double-reward may result in national support schemes being cancelled or limited.

Option 5A: The national support will NOT be taken into account.

Option 5B: The national schemes will be taken into account.

We recommend not to take into account the national schemes at this point as the complexity of addressing such double-reward greatly outweighs the benefits from limiting it. Moreover, it would not be desirable, if the FEETS support would result in Member States taking less action in giving support for uplift of FEETS and SAF in general.

f. Final allocation

The Competent Authorities will calculate the demand for free allocation for each aircraft operator that they administer. The competent authorities will transmit by a set deadline the following information to the Commission for each aircraft operator that has applied for the allocation:

- Identification of aircraft operator (name and ETS ID)
- Amount of FEETS per price/geography category
- Total demand for free allocation

A template will be provided for this purpose.

The Commission will review and consolidate the demand for free allocation and will adopt a Decision instructing the central administrator of the Union Registry to enter the national aviation allocation

tables for the year into the Union Registry, on the basis of Article 49 of Delegated Regulation (EU) 2019/1122.

Before the Commission adopts a Decision on the free allocation for uplift of FEETS, it will check that the remaining amount of allowances reserved is sufficient. If this is not the case, the Commission will calculate an allocation reduction factor, that will be applied in a uniform manner to all aircraft operators concerned by the allocation for that year.

The allocation reduction factor will be calculated as follows:

$$\textit{Allocation reduction factor} = \frac{\textit{remaining reserved allowances}}{\textit{total demand for allowances}}$$

The final allocation per aircraft operator will be rounded down to the nearest integer.

g. Correction procedure

In the event that the AER and the final amount of reported FEETS change after the review by Competent Authority and after the allowances have been calculated for that reporting year, the number of allowances can be adjusted by changing the values in the allocation table.

Any adjustments upwards can only be taken into account if there are still reserved allowances available for the FEETS support. Any downward adjustments and therefore return of excess allocation will be handled in line with Article 50(6) of the Registry Regulation ((EU) 2019/1122). The returned allowances will be put back in the remaining reserve of allowances for FEETS support.

6. Visibility

Article 3c(6) requires making visible any FEETS support received. The principle is the same as for the visibility of funding under the EU ETS' Innovation Fund¹¹. The Member States shall ensure that the aircraft operators receiving the FEETS support comply with this requirement.

In particular, the aircraft operators will be required to:

- a) acknowledge the origin of those funds and ensure the visibility of the Union funding, in particular when promoting the use of alternative fuels and their results by providing coherent, effective and proportionate targeted information to multiple audiences, including passengers, the media and the public, and on the operator's sustainability statements; and
- b) use an appropriate label that reads '(co-)funded by the EU Emissions Trading System (the FEETS support)', as well as the emblem of the Union and the amount of funding; where the use of that

¹¹ Article 30m(1), points (a) and (b), of the ETS Directive.

label is not feasible, the FEETS support shall be mentioned in all communication activities, including on notice boards at strategic places visible to the public.

In addition, in accordance with Article 14(6)(b)(iv), “the amount and type of fuels used (..) which entitle the aircraft operator to receive allowances pursuant to Article 3c(6)” will be published per aircraft operator by the Commission.

Annex A – Minimum FEETS list

| | Type of FEETS | Level of support* | Comments |
|---|--|-------------------|---|
| 1 | RFNBO | 95% | Drop-in renewable fuels of non-biological origin as defined in Article 2, point (36) of Directive 2018/2011 (RED) |
| 2 | Advanced aviation biofuels | 70% | Produced from the feedstock listed in Part A Annex IX RED |
| 3 | Aviation biofuels | 50% | Produced from feedstock listed in Part B Annex IX RED |
| 4 | Other aviation biofuels | 50% | Produced from the feedstock not listed in Annex IX RED and except for those produced from food and feed crops |
| 6 | Renewable hydrogen for aviation | 70% | Non-fossil renewable hydrogen for aviation as defined in Article 3, point (16) of ReFuelEU Aviation |
| 7 | Low-carbon hydrogen for aviation | 50% | Non-fossil hydrogen, the energy content of which is derived from non-fossil non-renewable sources |
| 8 | Synthetic low-carbon aviation fuels | 50% | Liquid fuels, the energy content of which is derived from non-fossil low-carbon hydrogen |
| 9 | Co-processed fuels | 50% | Co-products in a conventional refinery |

*Level of support unless the fuel is uplifted at an aerodrome in small islands with no mainland connection, in outermost regions and non-Union airports, when the support level is 100%.