

Public Consultation according to CEEAG for an electricity-based sustainable aviation fuel (eSAF) Funding Scheme

The Austrian Federal Ministry of Innovation, Mobility and Infrastructure (BMIMI) is considering introducing a joint eSAF funding scheme with Germany and Luxembourg for state aid notification and approval by the European Commission. The measure will be assessed on the basis of the Guidelines on State Aid for Climate, Environmental Protection and Energy (CEEAG). Under the relevant provisions, Member States are under certain conditions obliged to conduct public consultations on the competition impacts and proportionality of the measures to be notified. This notice serves to fulfil these obligations.

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BMIMI invites interested associations, companies and other affected organisations and individuals to submit their comments on the questions in this notice using [the EU survey online form](#) **by September 15th**, 2026 at the latest.

General background and need for intervention

Electricity-based sustainable aviation fuel (eSAF) is essential for achieving the European Union's commitment to climate neutrality by 2050 and for supporting global efforts under the Paris Agreement, while working towards zero pollution in aviation.

As a drop-in fuel compatible with existing infrastructure, eSAF can directly contribute to the decarbonisation of aviation. When used, eSAF delivers very low lifecycle CO₂ emissions and lower pollutant emissions compared to fossil kerosene. It is produced using renewable electricity, green hydrogen and sustainable CO₂, offering a scalable pathway to decarbonise energy-intensive air transport, where alternatives such as battery-electric solutions are not currently feasible.

Today, aviation fuels remain overwhelmingly fossil-based, and sustainable alternatives are not yet available at the scale required by the market. Most sustainable aviation fuel currently relies on bio-based pathways. In order for eSAF to meaningfully contribute to climate neutrality, production volumes must expand significantly and rely fully on renewable electricity and sustainable CO₂ sources.

eSAF is therefore a key priority within the European Green Deal and the EU's clean energy transition. It supports energy security, facilitates the integration of variable renewable electricity, and contributes to the decarbonisation of one of the most difficult-to-abate sectors.

As part of the Fit for 55 package, the European Union adopted the ReFuelEU Aviation Regulation. This regulation intends to promote sustainable commercial air transport in the EU by setting mandatory blending quotas for SAF. Within the regulation, the EU sets requirements for aviation fuel suppliers to gradually increase the share of biogenic and synthetic SAF blended into the conventional aviation fuel supplied at EU airports.

Despite the mandates set by the European Union, there is still a lack of Final Investment Decisions (FIDs) among eSAF projects. The key feature of the scheme is that the producers receive planning and investment security for a period of 10 years through an intermediary, irrespective of the developments on the buyer side. Such planning security for the cost-intensive production of eSAF cannot be offered by the market alone yet. Current estimates indicate that eSAF production costs (current EASA reference price of EUR 7.520

per tonne) remain significantly above fossil kerosene prices (640 EUR/t in current EASA estimate), illustrating the magnitude of the existing price gap.

At the same time, as eSAF production is a not yet established technology in Europe, market participants remain cautious and are reluctant to enter into long-term contracts at current price levels, particularly in light of expected future cost reductions due to technological learning and scale effects. This further reinforces the lack of bankable demand for early projects.

Without secure, long term demand commitments, producers struggle to mitigate investment risks and secure financing, resulting in many projects remaining stuck in the development phase despite a clear regulatory framework.

To address this gap, the proposed eSAF funding scheme is based on a double-sided auction mechanism. Through an intermediary entity acting on behalf of the Austrian, Luxembourg and German governments, long term off-take contracts for eSAF are awarded to producers via a competitive auction, targeting the lowest possible production price. In line with the wording coined by H2Global auctions, this is referred to as HPA (hydrogen purchase agreement), although eSAF is being tendered. The resulting strike prices are published to provide price transparency and guidance for future investment decisions.

The intermediary subsequently resells the purchased eSAF to fuel suppliers, or other eligible buyers through a separate competitive tendering process, referred to as HSA (hydrogen sales agreement). Any price difference between the upstream purchase price and the downstream resale price is compensated through public funding. In doing so, the mechanism de risks market entry by effectively bridging the gap between the current eSAF production costs and the off-takers' willingness to pay.

State aid and possible market distortion

eSAF production is associated with significantly higher costs compared to conventional fossil jet fuel and even advanced bio SAF, due to the need for renewable electricity, hydrogen production, CO₂ sourcing, and capital-intensive synthesis technologies. At the same time, airlines' willingness to pay remains constrained by international competition and thin margins in the aviation sector. As a result, a substantial price gap persists between current eSAF production costs and market prices for aviation fuels.

This cost gap represents a key barrier to market entry and leads to a lack of bankable business cases, as producers are unable to secure long term offtake agreements at prices sufficient to trigger final investment decisions (FIDs). While demand side mandates provide important volume signals, they do not, on their own, ensure price stability or investment security during the early market ramp up phase. Consequently, without targeted public support, there is a risk that the scale up of eSAF production will lag regulatory demand, undermining the defossilisation objectives of the EU aviation sector.

The planned eSAF support scheme seeks to address this market failure by temporarily bridging the gap between production costs and off-takers' willingness to pay through state aid. By providing predictable and transparent support, the scheme aims to enable early investments, facilitate learning effects, and accelerate cost reductions through economies of scale. Over time, it is expected that increasing deployment, technological progress, and the maturation of eSAF supply chains and commercial market structures will reduce reliance on subsidies and allow the eSAF market to operate on a more commercial basis.

With regard to EU state aid rules, the design of the eSAF funding scheme is intended to be targeted, proportionate, and limited in scope and duration. Given the comparatively early stage of the eSAF market, the high capital intensity of production facilities, and the limited number of projects expected to reach final investment decisions in the short to medium term, significant market distorting effects are considered unlikely. On the contrary, the scheme is expected to have a positive impact by supporting market entry, increasing competition among producers, generating transparent price signals, and contributing to the achievement of the EU's climate and transport policy objectives.

Against this background, the public consultation aims to gather feedback on the relevance, necessity, and potential market effects of state aid for eSAF in order to ensure an effective and competition compliant market uptake support mechanism.

- Do you have any concerns regarding the relevance of the eSAF support scheme for the decarbonisation of the EU aviation sector?
- Do you have any concerns regarding the necessity of state aid to support the market ramp-up of eSAF in the EU?
- Do you have any concerns that the eSAF funding scheme could have significant market distorting effects within the EU?

Auction design, timing and eligibility

The proposed eSAF funding scheme is conceived as a market-based instrument aimed at supporting the early market uptake of electricity based sustainable aviation fuels. To this end, an intermediary entity acting on behalf of the Austrian, Luxembourgish and German government would implement a double-sided auction mechanism. Through this mechanism, long term eSAF purchase agreements with producers (HPAs) and shorter-term resale contracts with off takers (HSAs) are competitively awarded, while public funding compensates the remaining price gap between production costs and market prices.

The allocation of aid would follow a structured process including pre-qualification, competitive bidding, ranking based primarily on price, and award decisions up to the available budget, with key auction parameters and results published to ensure transparency.

Eligibility for participation on the supply side is envisaged to be restricted to eSAF production facilities located within the European Economic Area (EEA). This geographic limitation is intended to support the development of European industrial capacity, reinforce security of supply, and ensure consistency with EU climate, energy, and state aid objectives. All bidders, regardless of company size, would be eligible to participate provided they meet a set of minimum prequalification criteria designed to ensure project realisation capability and reliable contract performance.

These eligibility criteria may include, inter alia:

- registration in a professional or commercial register and absence of exclusion grounds,
- no impermissible cumulation of state aid and the project must not be feasible without funding,
- sufficient financial standing, demonstrated through appropriate creditworthiness indicators, equity ratios, or alternative financial guarantees,
- proven technical, operational, and organisational capability to develop and operate an eSAF production project.

In addition, the scheme may incorporate resilience criteria, for example relating to supply chain diversification, technological robustness, or risk mitigation, in order to enhance long term reliability and reduce systemic dependencies during the market ramp-up phase,

similarly to the approach taken in the EU Innovation Fund IF25 Hydrogen Auction Terms and Conditions document.¹

On the producers' level, the intermediary would conduct auctions to conclude long term HPAs with a duration of up to ten years. Eligible producers would bid eSAF volumes and corresponding prices. HPA contracts would be awarded based on the lowest bid price. To ensure budgetary control and contract bankability, the guaranteed contract value would be limited by the total funding budget available.

As a prerequisite for funding, supported eSAF projects are expected not to have reached an irreversible investment stage prior to participation in the auction, with the exception of preparatory and planning activities, including a Front-End Engineering Design (FEED) study. To enhance the efficient use of public funds, the auction design may allow for optional additional volumes beyond the contractually fixed quantities, which would only be purchased if matching demand materialises on the sales side. As the HSA auctions will be conducted one year before the respective production year, the intermediary will know in advance if budget availability would allow for optional volumes.

On the off-taker level, the intermediary would resell the procured eSAF through competitive auctions to fuel suppliers, or other eligible buyers. HSAs could have shorter price commitment periods, for example around one to three years, in order to reflect current market conditions and evolving willingness to pay. Contracts would be awarded to the highest bid price, thereby minimising the gap between production costs and off takers' willingness to pay and ensuring that market signals are passed through to the greatest extent possible. Sales may be organised in predefined batches, with batch sizes calibrated to balance market accessibility for off-takers with administrative efficiency.

The Point of Sale is envisaged to be at a non-discriminatory location that ensures broad accessibility for eligible off-takers and facilitates efficient fuel logistics. This approach aims to maximise participation, support market liquidity, and ensure transparency in ownership transfer and pricing. It is intended that the share of eSAF corresponding to the Austrian funding must be placed on the market in Austria by the HSA-contractors. Blending and logistics would remain under the responsibility of the off-taker.

¹ The Commission launched a third Innovation Fund auction for hydrogen production under the European Hydrogen Bank IF25 Hydrogen Auction – with the following [Draft Terms and Conditions](#)

With regard to timing, the scheme is designed to operate within a defined auction period and a funding horizon aligned with expected project development timelines, with funds available for up to ten years. The delivery window is envisaged to span from 2030 to 2039. Contract durations and delivery start dates will be structured to align with the phased mandatory blending quotas for SAF under EU legislation.

Against this background, the public consultation seeks feedback on the proposed auction design, eligibility framework, timing, and operational parameters to ensure that the eSAF funding scheme enables broad participation, supports timely project realisation, and contributes effectively to the decarbonisation of the EU aviation sector.

- Do you have any concerns regarding the envisaged general auction design of the eSAF funding scheme, including the aid allocation process?
- Do you have any concerns regarding the eligibility criteria at large? What should the eligibility criteria look like?
- Do you have any concerns about the application of resilience criteria?
- Do you believe that the eligibility criteria allow for wide participation while ensuring project realisation?
- Do you have any concerns regarding the definition of the Point of Sale?
- Do you have any concerns regarding the envisaged timing of the eSAF scheme (auction period, contract duration, delivery start)?
- From the producer perspective, what is a reasonable period between HPA signing and first eSAF delivery?
- From an off-taker's perspective, does the proposed eSAF scheme timeframe match your expected supply needs?
- What should be the batch size for eSAF sales, meaning how many tons of eSAF should be auctioned in one HSA?
- How long should the duration of one HSA be? (For example, if one batch is 5000 t eSAF, in a three-year contract the off-taker would receive 5000 t per year for three years).
- Should there be a floor price for the HSA auctions? If so, what should the floor price ideally be?

Eligible product and geographic limitation

The proposed funding scheme focuses on electricity based sustainable aviation fuel (eSAF), which is ASTM-certified and fulfils the RFNBO-criteria in line with the EU Renewable Energy Directive (RED), as the eligible product.

To support the development of a European eSAF market, eligibility under the scheme is envisaged to be restricted to eSAF produced within the European Economic Area (EEA). Non-EEA eSAF production projects are also expected to enter the global market, potentially at lower production costs due to access to abundant renewable energy resources and favourable operating conditions. Imports of eSAF or eSAF relevant intermediates may therefore play a growing role in meeting long term aviation fuel demand. In this context, interactions between domestically supported eSAF production and future non-EEA imports will be an important factor for market development, competition, and price formation.

Restricting eligibility to EEA produced eSAF during the early market ramp-up phase may reduce complexity and support policy objectives related to industrial development and supply security. However, it may also influence investment signals, trade flows, and the integration of global eSAF supply chains. Understanding potential risks and opportunities associated with this design choice is therefore essential to ensure that the scheme effectively supports decarbonisation while remaining compatible with a developing international eSAF market.

The public policy objective of the scheme is to contribute to the achievement of the EU's climate targets specifically by incentivising a renewable product and, thus, to contribute both to the EU climate and renewable energy targets. Therefore, even if the sub-quota for eSAF under the ReFuelEU Aviation Regulation can be met not only by RFNBO eSAF, but also by synthetic low-carbon eSAF, only RFNBO eSAF projects will be eligible under the scheme. Only in this way does the scheme specifically incentivise the generation of a renewable (RFNBO) eSAF.

- Do you have any concerns about this approach?
- Do you see any risks or opportunities associated with limiting the scheme to EEA produced eSAF, and how might non-EEA imports interact with the market?

Incentive effect and emission savings

eSAF production is characterised by high capital and operating costs, while off-takers are generally unable or unwilling to enter into long-term purchase agreements.

Under the envisaged funding scheme, the level of state support would be determined by the price gap between the long-term purchase price agreed with eSAF producers and the resale price achieved through competitive sales auctions to off-takers. Public funding would thus be strictly limited to the minimum amount required to bridge this gap and achieve the objectives of the scheme. Where off-takers are willing to pay prices that cover production costs, no subsidy would be paid. This design ensures proportionality of aid and avoids overcompensation, while preserving market-based price discovery on both the supply and demand sides.

The European Union Aviation Safety Agency (EASA) publishes reference prices for SAF every year, among which a production cost estimate for synthetic aviation fuel can be found.² The assumptions and calculation details of their thorough analysis can be found in their methodology document.³

The total budget of the funding scheme will be up to EUR 2,119 billion. Austria intends to contribute up to €60 million. The duration of the HPA contracts is envisaged to be 10 years (2030-2039). Based on the assumption that the auction would procure eSAF at the current EASA reference price of EUR 7.520 per tonne, a minimum volume of approximately 7.979 tonnes of eSAF could be supported under the scheme. Greenhouse gas emission savings are estimated on a conservative basis, applying a lifecycle emission reduction factor of at least 70 % against the fossil jet fuel comparator, as mandated for RFNBOs under the Renewable Energy Directive. The fossil reference value is assumed to reflect the standard life-cycle emission intensity of conventional kerosene. On this basis, the measure is expected to result in a total emission reduction of at least 17.594 tonnes of CO₂ equivalents over the supported volume.

² EASA 2026 briefing note “2025 Aviation Fuels Reference Prices for ReFuelEU Aviation”: <https://www.easa.europa.eu/en/document-library/general-publications/2025-aviation-fuels-reference-prices-refueleu-aviation>

³ EASA methodology document: <https://www.easa.europa.eu/en/downloads/142604/en>

Table 1 Example calculation of funded volume eSAF and resulting emission savings.

Parameters	BMIMI eSAF funding scheme
Budget (EUR)	up to 60.000.000
EASA reference price (EUR/t)	7.520
Minimum funding volume based on EASA reference price (t)	7979
GHG-emissions per tonne jet fuel burnt (t CO ₂ eq./t) ⁴	3.15
GHG-emission saving factor by RFNBO-criteria (%)	70 (at least)
Total emission reductions (t CO ₂ eq.)	17.594

Table 2 reflects a scenario-based approach based on the assumptions mentioned above and two different HSA-price scenarios. These are based on the price for fossil aviation fuel (640 EUR/t in scenario A) and the price for HEFA-SAF (1.925 EUR/t in scenario B) according to EASA.

Parameters	Scenario A	Scenario B
Volume of eSAF funded (t)	7979	7979
Possible HSA-price (EUR/t eSAF)	640	1.925
Total funding spent (EUR)	54.893.440	44.640.425
Effectiveness (t CO ₂ eq.)	17.594	17.594
Efficiency (EUR/t CO ₂ eq.)	3.120	2.537

Both scenarios use conservative assumptions, as it is expected that due to obligations under ReFuelEU Aviation the HSA-price will be above the price for fossil kerosene but also

⁴ EUROCONTROL (2018): European aviation fuel burn and emissions inventory system (FEIS) for the European Environment Agency

above the price for biogenic SAF. Higher HSA prices will provide opportunities for the production of optional volumes and reduce the budget expenditure.

By enabling early eSAF deployment, the scheme is expected to deliver direct emission reductions through the substitution of fossil kerosene with RFNBO-compliant eSAF. At the same time, it aims to generate indirect benefits by accelerating cost reductions through economies of scale, technological learning, and infrastructure development. Over time, these effects are expected to narrow the cost gap between eSAF and conventional aviation fuels, thereby reducing the need for continued state support.

The funding scheme is therefore designed to provide a clear incentive effect while remaining limited in scope and duration. Its objective is not to permanently subsidise eSAF, but to support the transition towards a market environment in which eSAF production and consumption can become commercially viable without public intervention. The consultation seeks input on whether this approach is considered necessary, appropriate, and proportionate, and on expectations regarding the timeframe in which eSAF could reach cost covering levels under prevailing market conditions.

- Do you have comments on the incentive effect, necessity or proportionality of the eSAF funding scheme?
- Do you have comments on the main assumptions informing the quantification used to demonstrate the incentive effect, necessity and proportionality as in Table 1 and 2?
- Do you expect eSAF production and consumption could reach cost covering levels without state support in the near future? If so, when?

The effectiveness of the eSAF funding scheme will be evaluated, among others, based on the greenhouse gas emissions avoided. This reduction will be estimated based on a mass balance system in accordance with Article 30 of the Renewable Energy Directive and Article 19 of the Implementing Regulation 2022/996 of 14.06.2022.

Do you have any concerns regarding this approach?

Data protection and confidentiality

BMIMI will duly examine all comments and submissions received in the course of the consultation and will take them into account in the further administrative procedure, as appropriate. Trade and business secrets, as well as any other confidential information, will be safeguarded in accordance with the applicable legal provisions. The evaluation of the consultation will be provided to the European Commission together with the formal notification of the measure for the purposes of State aid approval.

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Last modified: 10 August 2026