Statement on the currently evaluated book-and-claim options for the flexibility period within Regulation (EU) 2023/2405 (ReFuelEU Aviation)

Regulation (EU) 2023/2405 (ReFuelEU Aviation) provides for a 10-year flexibility period from 2025 until December 2034, as set out in Article 15, during which sustainable aviation fuel (SAF) mandates will not be applicable on an airport-specific basis. This is reflective of the fact that SAF, which also includes synthetic aviation fuel (eSAF), is currently produced in limited volumes. Furthermore, the infrastructure required to make it available at each airport covered by the regulation is not yet in place. The flexibility period is intended to allow for development of this infrastructure alongside increasing SAF volumes on the market.

During the flexibility period, aviation fuel suppliers can under- or overachieve their minimum SAF or eSAF shares at different airports in order to comply with the SAF mandates. However, as this could result in aircraft operators not having physical access to SAF at certain airports, the **EU Commission is currently evaluating the introduction of a book-and-claim-like system**. This system would enable fuel suppliers and aircraft operators without physical access to SAF to purchase **"virtual SAF"** physically supplied at different Union airports, and claim the environmental benefits of the respective volumes of SAF.

The precise design of this flexibility period has not yet been determined. ReFuelEU Aviation tasks the European Commission with establishing or recognising a **system for tradability of SAF**, enabling virtual fuel supply to demand sites across the European Union without the need for a physical connection to the demand sites (i.e. airports), as well as enabling SAF **traceability**. Under Article 15 of ReFuelEU Aviation, the European Commission must publish a technical evaluation report of such a system by 1 July 2024.

In this context, **three different design options for a book-and-claim-like mechanism** have been presented to stakeholders and **are currently under discussion** (see Figure 1). **The Global Alliance Powerfuels supports the introduction of elements of a book-and-claim system during the flexibility period**. This system would allow aircraft operators to purchase quantities of virtual SAF (including eSAF) at EU airports at which SAF is not physically available, while allowing SAF production projects to emerge at locations best suited for the production – independent of the location of the demand sites.

The introduction of mandates could lead to increased competition for limited volumes of SAF in the market ramp-up phase, which could in turn result in shortages in the physical supply of SAF at certain airports. This dynamic would disadvantage European aircraft operators at these airports if physical supply of SAF to each Union airport was required. The introduction of a book-and-claim system is therefore welcomed. It can provide the right conditions for fulfilling the main objectives of ReFuelEU Aviation, namely creating a level playing field and promoting the uptake of SAF.

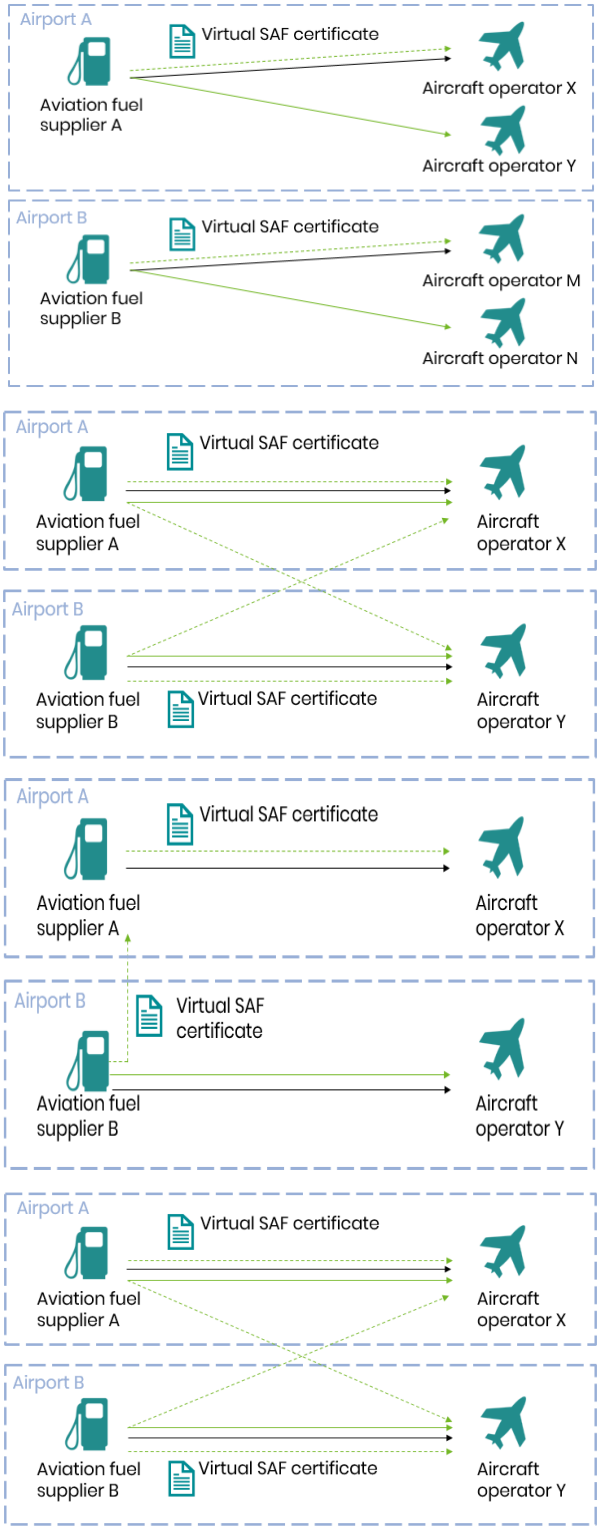

Figure 1: Design options of the ReFuelEU Aviation flexibility mechanism

Option 1
Fuel suppliers can only sell virtual SAF certificates at airports to which they are already physically supplying conventional fuel
→ Aviation fuel supplier A is limited to aircraft operator X and Y at airport A
→ Aviation fuel supplier B is limited to aircraft operator M and N at airport B
→ Sale of virtual SAF certificates is limited to aviation fuel suppliers providing conventional fuel to the specific airport

Option 2
Virtual SAF certificates can be traded irrespective of whether fuel suppliers already operate at a given airport
→ These are not counted towards ReFuelEU Aviation compliance
→ Aviation fuel supplier A can trade SAF certificates to aircraft operators X and Y
→ Aviation fuel supplier B can trade SAF certificates to aircraft operators X and Y

Option 3a
Aviation fuel supplier B does not supply fuel to airport A, but can sell virtual SAF certificates to aviation fuel supplier A operating at airport A. Fuel supplier A can then sell SAF certificates to aircraft operator X
→ An aircraft operator can purchase virtual SAF from an aviation fuel supplier that physically serves their airport
→ The virtual SAF certificates can count towards ReFuelEU Aviation compliance

Option 3b
Aviation fuel supplier A supplies fuel to airport A and can sell virtual SAF certificates to aircraft operator X and Y. The same applies to the aviation fuel supplier B.
→ The virtual SAF certificates can be counted towards ReFuelEU Aviation compliance

Physical supply of SAF
Physical supply of conventional fuel
Virtual SAF certificate

Summary of position and recommendations

A book-and-claim system would separate the physical delivery of sustainable aviation fuel (SAF) from the trading of SAF certificates, allowing certificate trading that would otherwise not be possible.[1] Identifying an appropriate design for the flexibility mechanism and the corresponding book-and-claim option is crucial to maximise the benefits of a book-and-claim system and unlock the full potential of SAF and eSAF.

Option 1 is the most restrictive of the options. It is limited to aviation fuel suppliers that physically deliver conventional aviation fuel to at least one airport in a Member State. Option 2 offers greater flexibility. However, as SAF cannot be counted towards mandatory supply volumes, neither option 2a nor option 2b provides a sufficient incentive to trade SAF certificates.

Option 3b is the favoured option of the Global Alliance Powerfuels

The Global Alliance Powerfuels sees **option 3b** as the preferable choice, **provided that the definition of "aviation fuel supplier" also includes fuel suppliers that exclusively produce SAF or eSAF or also allows such SAF producers to participate in trading SAF certificates**. Option 3b would provide a competitive advantage for SAF as it allows traded SAF certificates to be counted towards ReFuelEU compliance. Additionally, the extended definition grants market access to new players, increasing opportunities to enter the SAF market, especially for green fuel producers.

With regard to the mechanism's general design, the following key points are essential:

1. **Ensure harmonization of the term "aviation fuel supplier" and allow fuel suppliers that exclusively produce SAF or eSAF to participate**

The ReFuelEU Aviation Regulation defines an "aviation fuel supplier" as a *"fuel supplier as defined in Article 2, second paragraph, point (38), of Directive (EU) 2018/2001* [Renewable Energy Directive II – RED II]*, supplying aviation fuel or hydrogen for aviation at a Union airport."* According to Art. 2(38) RED II, a fuel supplier is *"an entity supplying fuel to the market that is responsible for passing fuel through an excise duty point or, in the case of electricity or where no excise is due or where duly justified, any other relevant entity designated by a Member State."*

As the revised Renewable Energy Directive must now be transposed into national law in each Member State, the exact definition of "fuel supplier" depends on the national legislation of the respective Member State. Depending on the national transposition, the definition of fuel supplier **could be limited to parties that primarily produce conventional fuel above a certain production volume**. This would create a barrier to market entry for new players and could lead to a patchwork of different definitions and interpretations.

[1] See our discussion paper on "Tracking models for liquid powerfuels" (2023)

The Alliance therefore recommends clarifying the term "aviation fuel supplier" and ensuring that its definition is harmonized across EU member states, including a revision to include producers who exclusively supply SAF or eSAF. Even if SAF producers do not directly supply the fuel to airports or aircraft operators, the mechanism should nonetheless enable them to participate in the certificate trade.

2. Ensure compatibility with RED III and EU ETS

Aviation fuel suppliers are required to demonstrate that SAF meets the sustainability criteria under RED III. According to Art. 30 RED III, operators must use a mass balance system for e-kerosene (which falls under both the RFNBO and the SAF definition, respectively) to be counted towards the RED III transport targets. The same applies to aircraft operators seeking to claim the use of SAF under the EU ETS, as they must also demonstrate sustainability in accordance with RED III. The implementation of a book-and-claim mechanism could therefore lead to regulatory challenges due to conflicts between the obligations of fuel suppliers under RED III and the obligations of aircraft operators under the EU ETS and the book-and-claim tracking model under the ReFuelEU Regulation.

The potential introduction of a book-and-claim system could result in a part of the supply chain (e.g. up to SAF blending) being tracked by mass balance, with each subsequent step covered by a book-and-claim based tracking model.

We recommend that the current regulatory landscape for SAF and eSAF, including the link between ReFuelEU Aviation, RED III and the EU ETS, be carefully assessed to avoid potential incompatibilities.

3. Ensure traceability by establishing a dedicated virtual SAF trading platform linked to the Union Database to reduce the risk of double counting

We recommend the establishment of a dedicated platform for trading virtual SAF certificates. This platform should be designed in such a way that it allows:

I. traceability of the SAF certificates and all related information,
II. aviation fuel suppliers to sell virtual SAF certificates directly to an aircraft operator A at Union airport B directly and
III. other aviation fuel suppliers at airport B to virtually claim relevant quantities of SAF, both for the purpose of fulfilling their blending quota obligation under ReFuelEU Aviation and for counting said virtual quantities towards RED III targets in the transport sector. These quantities must therefore be accountable in the Union Database.

We recommend that the Commission provides the necessary administrative framework – a "virtual SAF trading platform" – to connect the Union Database with the envisioned database for virtual SAF certificates trading. This measure would allow to reduce the risk of double counting.

4. Provide an incentive for aircraft operators, e.g. benefits from counting SAF certificates towards EU ETS obligations

The final design of the certificate trading scheme should include appropriate incentives for aircraft operators, e.g. benefits from counting the SAF certificates towards their EU ETS obligations, in support of the ReFuelEU objective of accelerating SAF uptake. Under option 3b, which would allow the direct purchase and sale of SAF certificates between aviation fuel suppliers and aircraft operators, quantities of SAF would be guaranteed for aircraft operators regardless of the quantity physically available at the airport.

To make these benefits available to aircraft operators, they must receive either the Proof of Sustainability (PoS) or another document with the same value as the PoS to demonstrate compliance.

General remarks and outlook

The ReFuelEU Aviation Regulation was formally adopted in October 2023. It aims to stimulate the uptake of sustainable aviation fuel and synthetic aviation fuel in the EU while ensuring a level playing field. From 2025, aviation fuel suppliers will be required to ensure that a minimum share of SAF – and, from 2030, synthetic aviation fuel – is made available to aircraft operators at each Union airport. The minimum shares are set out in Annex I of ReFuelEU Aviation and will increase over time. While aviation fuel suppliers will be obliged to deliver the minimum share of SAF, airports must facilitate access to SAF for aircraft operators. Although there is no obligation on aircraft operators to use the minimum shares of SAF, the 90% fuelling obligation laid down in Article 5 of ReFuelEU Aviation is designed to ensure that aircraft operators use the SAF blends that fuel suppliers are required to supply. Sustainable aviation fuels are defined as aviation fuels compliant with Directive (EU) 2018/2001 (RED II) and ReFuelEU Aviation. They include synthetic aviation fuels, aviation biofuels and recycled carbon aviation fuels, all of which comply with the definitions and sustainability criteria established in these regulations.
In a previous joint letter, the Alliance underlined its support for ReFuelEU Aviation. The use of SAF, including increasing shares of eSAF, is the only viable option for the aviation industry to meet the ambitious greenhouse gas reduction targets. Ensuring the right design of the flexibility period and identifying the most effective option for a book and claim system will therefore be crucial for increasing SAF uptake putting the EU on the right track in terms of SAF production and associated supply chains.

Three main questions require clarification:

1) **Uncertainty regarding the detailed rules on penalties for underachieving set quotas, as the implementation of the penalties is left to the Member States**

At present, we know that the penalty will be at least twice the difference between the average annual price of conventional aviation fuel and SAF per tonne, multiplied by the amount of the minimum share not met. Introducing appropriate penalties is crucial to achieving ReFuelEU's objectives. With this in mind, the penalties should be sufficiently dissuasive to ensure that fuel suppliers meet the SAF quotas and should also be announced as soon as possible. Additionally, it must be ensured that the penalties do not vary significantly between Member States to avoid creating distortions within the EU.

2) **Uncertainty about future quotas due to scheduled evaluation report by January 2027**

Article 17 of the ReFuelEU Aviation Regulation requires the European Commission to publish a report evaluating the development of the aviation fuel market and the application of ReFuelEU Aviation by 1 January 2027. The Commission reserves the right to revise the scope of ReFuelEU Aviation, including the SAF definition, eligible fuels and the minimum shares of SAF. We generally support a review of targets to bring them in line with market developments. However, the potential for changes to

the definition of SAF creates uncertainty for fuel suppliers, which could hinder its market uptake. **We therefore propose that it should only be possible to increase the quota following the review.**

3) Uncertainty about eSAF produced before 2030

The first mandate for synthetic aviation fuel will apply from 2030 onwards. This means that the production and supply of synthetic aviation fuel will not be encouraged before this date. However, some companies are capable of producing synthetic aviation fuel before then. **We therefore emphasize the crucial need to allow lighthouse projects that produce synthetic aviation fuel before the ReFuelEU 2030 mandate – such as from 2027– to count towards ReFuelEU compliance before 2030.**

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The **Global Alliance Powerfuels** was founded in 2018 and is backed by corporate organisations and an international network of 20 partner institutions. It is coordinated by the German Energy Agency (dena). The strategic objective of the Alliance is to foster the development of a global market for powerfuels.

The term **powerfuels** denotes not only renewable hydrogen but all gaseous and liquid fuels from power-to-X processes that draw their energy content from renewable electricity. This includes, but is not limited to, synthetic gas (e.g. methane, hydrogen) and synthetic liquid fuels (e.g. methanol, ammonia, and Fischer-Tropsch products).

Powerfuels complement the direct use of renewable energy and are crucial where direct electrification is not technologically feasible. By offering climate-neutral decarbonisation options to applications with no viable alternatives, powerfuels allow for more far-reaching de-fossilisation of all end-use appliances, across all sectors – thus enabling system-wide emissions reductions. Powerfuels can also accelerate the integration of the energy system by replacing fossil energy sources and offering flexibility as a long-term storage option.