

Summary

Sustainable Aviation Fuels (SAF) are the most important means to reduce aviation's climate impact. The climate targets of air transport are only achievable once all options are enabled. To provide sustainable aviation for everyone, it is necessary to design measures to reduce the climate effects of aviation in a cost-effective and technology neutral manner. Earnings from those measures (EU ETS, ReFuelEU) should be used to support the market ramp-up of sustainable aviation fuels.

ReFuelEU:

We consider the blending mandate as an effective measure and advocate raising the general quota to 10% and 2% for PtL-fuels (Power-to-liquid) in 2030. In this regard it is important to:

- ... calculate the quota as average of all European airports
- ... consider the (partial) accounting of SAF being fueled outside of the EU
- ... strictly prevent double accounting

This can be achieved by an accounting system based on a Book-and-Claim methodology. Additionally, this would allow for provision and use of SAF above levels of the quota.

EU ETS:

An amendment of the EU ETS can support the uptake of SAF as long as specific preconditions are fulfilled. However, even a high allowance price does not compensate for the price gap between conventional jet fuel and SAF. Therefore, the earnings from the EU ETS should be used to support providers and users of SAF financially. This can be achieved by implementing measures such as Carbon Contracts for Difference.

EU ETD:

As intra-EU aviation is included in the ETS already, a market-based measure to reduce emissions already exists. Because of the current blending limit of 50% also SAF Blends would be subject to taxation. Therefore, we do not support the implementation of a kerosene tax. We suggest Carbon Contracts for Difference instead.

Adaptation RED:

We support the raise of the renewable energy target. It is important that as many feedstocks are taken into account as possible and that those are certified by strict sustainability criteria.

General

Sustainable Aviation Fuels (SAF) are the most important means to reduce aviation's climate impact. Not only emissions of greenhouse-gases (GHG), but also non-CO₂ related climate effects of aviation can be reduced by SAF (1). Hence, we support all incentives to support the market ramp-up of SAF. At the same time, a level-playing field among all stakeholders of the aviation transport system must be ensured.

Presently, SAF cover less than 0,1% of the global kerosene consumption. Aviation's contribution to global climate goals can only be achieved if all available options are being used. This is the reason why we advocate a temporary inclusion of renewable energy from the grid. This should be limited to the particular moment, once the technology readiness level of PtL-conversion has reached a predefined value. Especially against the background of current capacity build up of renewable energy an additional provision is a precondition for sustainable PtL-fuels. Conversion routes which are already available at commercial scale require long-term investment and planning security. Simultaneously, routes under development should be supported on their path to technological maturity in order to unleash the full potential of sustainable aviation fuels.

Aviation is an international business. Locally diverse policies distort competition, it creates unnecessary bureaucracy and unnecessary administrative burdens. These are the reasons why Europe should campaign for globally harmonized incentives and policies, such as CORSIA or a global SAF blending mandate.

There is no alternative to the international transport of people and goods – not only in times of crisis. To provide sustainable aviation for everyone, it is necessary to design measures to reduce aviation's climate impact in a cost-effective and technology neutral manner. We suggest to use earnings (e.g. from EU ETS and ReFuelEU) focused to support the market ramp-up of sustainable aviation fuels. Especially the significant price gap between conventional jet fuel and SAF needs to be closed, in order to allow for learning- and scale-effects. Carbon Contracts for Difference are one measure to facilitate this development.

ReFuelEU

We consider the blending mandate as an effective measure to support the ramp-up of SAF. To further reduce the climate effects of aviation and to support their uptake, we advocate for an increase of the quota to 10% in general and 2% for PtL-fuels in 2030. We, as well as several other stakeholder consider a corresponding development of production capacities to be realistic (2),(3). An additional measure to

support the uptake of SAF would be to accelerate the duration of approval procedures for production facilities. To support PtL-fuels a legal definition of sustainable carbon sources (e.g. green CO₂, CH₄ or other biogenic sources) should be made, as it already exists for renewable electricity and hydrogen.

From an environmental perspective there is no difference whether the union-wide average of fuel or the fuel at each airport fulfills the blending mandate. But the second option would cause significant efforts and emissions for fuel logistics. Therefore the union-wide average should be used as basis to calculate fulfillment of the blending mandate.

The same holds for the question whether or not a fuel is uplifted within or without the EU. Lower production cost in other regions might offer benefits to produce SAF outside the EU and – to lower logistics cost – to fuel them there. This should be considered at least for a partial fulfilment of the quota. In this way less-developed countries might also profit from the development of new economic sectors. In order to avoid double-accounting, clarity is necessary which emission reductions can be accounted for in which system.

To leverage these opportunities the introduction of a Book-and-Claim accounting method for SAF is necessary. By generating tradeable Guarantees of Origin at the production facilities, SAF could be blended into the existing infrastructure for jet fuel. A book-and-claim approach provides even further advantages:

Supplier of SAF can deliver amounts even above the blending mandate. Guarantees-of-Origin could be traded among fuel suppliers, which would simplify the fulfilment of the blending mandate at industrial level.

Also users of SAF could buy amounts above the quota more easily. The simplified accounting would reduce administrative cost for fuel users and hence increase their acceptance

EU ETS

An amendment of the EU ETS can support the uptake of SAF as long as specific preconditions are fulfilled. The greater the geographic extend of an emissions trading scheme, the more equal are the conditions for competition. This is why we support the implementation various international measures, e.g. of CORSIA. But the effectiveness of the EU ETS should not be lessened.

Accounting of SAF should be possible within the EU ETS. A book-and-claim accounting method would strongly support this (s. section Blending Mandate).

Even a high allowance price does not compensate for the price gap between conventional jet fuel and SAF. Therefore, earnings from EU ETS should be used to reduce financial burdens for SAF producers and users. This can be achieved e.g. by Carbon Contracts for Difference or a reduction of the investment-risk for high potential fuels (e.g. PtL)

EU ETD

Aviation participates already in the EU ETS and hence aims at reducing its emissions. The focus should be the implementation of SAF. Financial capabilities should be used to introduce SAF and not be bound by measures which do not support the uptake of SAF.

Presently SAF are only allowed to be used when blended with at least 50% of conventional jet fuel. Any SAF being used would therefore also be taxed to a certain extent.

Because of these reasons we do not support the implementation of a kerosene tax. Alternatively, we suggest the development of Carbon Contracts for Difference, to de-risk investment in SAF production capacities. Instead of economical drawbacks the transformation to sustainable aviation should be supported.

RED II/III

We consider the raise of the reduction target to be effective. It is important to have as many feedstock options available as possible. These options should be strictly certified as sustainable and a usage competition (e.g. with food) should be excluded with certainty.

We appreciate the opt-in opportunity for aviation, especially since renewable energy carrier play a significant role in reducing the climate impact of aviation. SAF do not only reduce the CO₂ related climate impact, but also further effects such as contrail-induced cirrus or NO_x-emissions (1).

- (1) Voigt, C., Kleine, J., Sauer, D. *et al.* *Cleaner burning aviation fuels can reduce contrail cloudiness. Commun Earth Environ* **2**, 114 (2021). <https://doi.org/10.1038/s43247-021-00174-y>
- (2) World Economic Forum (2020): Clean Skies for Tomorrow. Sustainable Aviation Fuels as a Pathway to Net-Zero Aviation. Unter Mitarbeit von Kevin Soubly, Christoph Wolff, Lauren Uppinnk, Daniel Riefer, Clemens Kienzler, Alex Dichter und et al. <https://www.weforum.org/reports/a356c865-311e-45ca-845d-efe5f762a820>
- (3) SkyNRG (2021): SAF Market Outlook. SkyNRG's Perspective on the ReFuelEU Aviation initiative Proposal. Unter Mitarbeit von SkyNRG. Hg. v. SkyNRG. SkyNRG. Amsterdam. <https://skynrg.com/a-market-outlook-on-sustainable-aviation-fuel/>