

ReFuelEU: aviation fuel regulation

A first step on the long road to decarbonise aviation

Context

Aircraft rely exclusively on fossil jet fuel to operate, which explains why growing passenger numbers have rapidly increased emissions from the sector. Carbon pricing, modal shift and new aircraft are important, but it's only when we swap fossil jet fuel for **sustainable aviation fuels (SAFs)** that emissions from flying will fall. To date, no effective measures have been put in place at European level to achieve such a switch. **The ReFuelEU Regulation proposal**, introduced as part of the EU's Fit for 55 package in July 2021, changes that. T&E's full position paper is available [here](#).

What has the Commission proposed?

The proposal introduces an obligation on jet fuel suppliers to **blend a growing share of SAFs (biofuels and e-kerosene) into fuel** provided to airports in Europe. That obligation covering both types of fuels **starts in 2025 at 2%, and grows to 5% in 2030 and further beyond that.**

- The regulation **excludes the use of crop-based biofuels**, which are a cure worse than the disease given their negative impacts on climate and biodiversity.
- Instead, it mandates the use of **advanced biofuels and synthetic aviation fuels (e-kerosene).**

- The support for **e-kerosene** is especially important, as it is **the only fuel type which can be sustainably scaled up** to meet the fuel demands of the sector.
- The Regulation also includes a **financial penalty** for non-compliance.

What's good? What's not?

Mandating the use of SAF is essential to bringing down aviation emissions. The regulation **applies to all fuel sold in the EU**, thereby covering all flights within and departing from the bloc. This is an important distinction from other climate measures adopted to date, which have only covered flights within the EU (less than 40% of emissions).

The proposal will also **replace existing and planned national fuel mandates**, a positive step as many of them were relying on crop-based biofuels.

The Commission has also proposed a provision **requiring airlines to uplift from EU airports at least 90% of the jet fuel they require to perform flights within and from the EU.** This is to prevent airlines avoiding the SAF mandate by purchasing extra fuel outside of the EU. This is an innovative proposal, and should strengthen the effectiveness of the scheme.

The proposal goes some way towards **selecting the right types of SAFs**. It **excludes crop-based biofuels** and instead focuses on advanced biofuels and synthetic aviation fuels (e-kerosene).

- **Advanced biofuels:** are made from wastes and residues. With the right safeguards, they can be sustainable. However, **the feedstocks are limited in supply** and have competing uses in other sectors, and so targets should be low.
- **E-kerosene:** is produced from renewable electricity and captured CO₂. When the renewable electricity is additional and the CO₂ is captured from the atmosphere (Direct Air Capture (DAC)), **the fuel has close to zero CO₂ emissions**.

How should ReFuelEU be improved?

The Regulation should be improved by **correcting the balance between advanced biofuels and synthetic aviation fuels**. That means increasing the 2030 synthetic aviation fuel subtarget to **2%** (from 0.7%) and decreasing the advanced biofuel target of 4.3% in 2030. Furthermore, renewable hydrogen and electricity should be included in the scope of ReFuelEU, so as to give stronger signals to accelerate the development of zero-emission aircraft. Finally, [non-CO₂ effects](#), which represent two-thirds of aviation's climate impact, can be partly tackled by ReFuelEU. The Regulation should therefore include a provision to regulate fuel quality, since the aromatic and sulfur content of jet fuel is the main driver of contrail formation and poor air quality (more information [here](#)).

What next?

Throughout this first year of legislative process, ReFuelEU has faced heavy scrutiny, and there has been pressure from some industry actors to weaken safeguards (i.e. by including crop-based biofuels and expanding the list of what's considered advanced biofuels).

In the European Parliament, three committees are responsible for the text: **Transport (TRAN)**, which is the lead committee and two associated committees, **Industry (ITRE)** and **Environment (ENVI)**, which have already approved very progressive and ambitious opinions on ReFuelEU, including increasing the e-kerosene target. The TRAN committee will vote on the text on **15/16 June**. The plenary of the European Parliament should then have its final vote **in July**.

In the Council, a general approach should occur on **June 2**. So far, a number of EU member states have been reluctant to keep the climate ambition of the text, going as far as enlarging the definition of SAF to include unsustainable biofuel feedstocks.

Trilogues between the institutions would then start **this summer**, in order for the text to enter into force in 2023. All these dates are still tentative.

Further information

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