

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 advanced 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 changes that.

What has the European Commission proposed?

The proposal introduces an obligation on jet fuel suppliers to blend a growing share of SAFs (advanced 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 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 mandate applies to all fuel sold in the EU, therefore covering all flights including long-haul departing flights.
- 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 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, 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 it be improved?

The Regulation should be improved by correcting the balance between advanced biofuels and e-kerosene. That means

What next?

The Regulation now must be adopted by the Council and the European Parliament before becoming law, which should occur over the coming 12-18 months. The Regulation will face heavy scrutiny, and there will be pressure from some industry actors to weaken safeguards (i.e. by including crop-based biofuels, expanding the list of what's considered advanced biofuels). That pressure must be rejected, and instead the target for e-kerosene increased.

The Commission will also propose secondary legislation later this year relating to the environmental integrity of e-kerosene, in particular the type of CO₂ used in production. The Commission should mandate a share of DAC CO₂ from the start of the mandate, increasing to 100% as soon as possible.

increasing the 2030 e-kerosene subtarget of 0.7% and decreasing the advanced biofuel target of 4.3% in 2030. Advanced biofuels are limited in availability and many types actually have negative environmental and climate impacts. The proposal has a very low e-kerosene target, and a priority should be to increase that target beyond the proposed 0.7% in 2030 and 5% in 2035.

Don't forget...

The UK is a major aviation market, and the overall effectiveness of the ReFuelEU would be increased if the UK were to join the EU in adopting a similar measure. We are confident this will happen, as the UK government has already expressed an interest in such a measure, and earlier this year took the important step of including all aviation emissions in its carbon budget.

Further information

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