ReFuelEU Aviation

T&E's recommendations for the 9th December TTE Council

Context

In its latest progress report, the Slovenian presidency has invited member states to share their views on the following two aspects of ReFuelEU Aviation:
- whether the Commission's approach on which fuels should be eligible as Sustainable Aviation Fuels is sufficient to match the level of ambition for SAFs across the EU, while ensuring environmental integrity and competitiveness of EU operators.
- the adequacy of the level of the blending mandates proposed by the Commission in achieving EU climate targets.

Below are T&E's recommendations on how to best address these questions for the upcoming TTE Council. More information on our overall ReFuelEU recommendations can be found in our position paper.

Which feedstocks should be eligible?

The Commission's original proposal goes some way towards selecting the right types of SAFs. It excludes food and feed crop-based biofuels and instead focuses on advanced biofuels and e-kerosene. However, the latest Slovenian presidency compromise proposed changing the definition of SAFs (Art.3, point 5). **This would significantly weaken the sustainability of ReFuelEU, as it would open the door to the following feedstocks, which all have competing uses and would therefore cause displacement emissions:**

- **Animal fats cat III** - are by-products from the animal slaughter process and are already being used for the manufacture of oleochemicals (e.g. soaps, cosmetics), pet food and animal feeds. [1]
- **Palm Fatty Acid Distillate (PFAD)** - is a by-product of the palm oil refining process. It has a high value in other industries, such as oleochemicals. Its use for biofuels is likely to cause significant displacement emissions. [2]
- **Intermediate crops** - planted before or after the main crop. They create a major loophole as according to the ICCT, intermediate crops can include winter corn and soybean from Brazil.[3]
- **Molasses** - are by-products from the processing of sugar cane and sugar beet into sugar and are already being used for animal feed and in the yeast sector.

T&E recommends that: **the definition of SAFs (Art.3, point 5) reverts back to the Commission's original proposal and remains strictly limited to synthetic fuels, as well as RED Annex IX part A & B feedstocks.**

[1] Ecofys (2016) Indirect emissions from rendered animal fats used for biodiesel
[2] Cerulogy (2017) Waste not want not
[3] ICCT (2021) Changes to the Renewable Energy Directive revision and ReFuel EU proposals: Greenhouse gas savings and costs in 2030

Are the SAF blending mandates sufficient?

The Commission's proposal does not currently prioritise the right type of SAFs: instead of focusing on e-kerosene, which is the only fuel type which can be sustainably scaled up to meet the fuel demands of the sector, **the proposal mandates unsustainably high volumes of part A & B biofuels,** as explained below:

- Advanced biofuels (part A of the RED's Annex IX): include wastes and residues, but also co-products and some primary products. There are few feedstocks that have no other uses and that could be used for SAF production without any significant impact on existing markets, on the environment and the climate[4]. **The target for part A biofuels should hence be set at a realistic and sustainable level, starting at 0.3% in 2025 (0.14 Mtoe)[5] and then 2.5% in 2030 (1.3 Mtoe)[6].** We have calculated the maximum availability of SAFs from part A feedstocks at 5.85 Mtoe, which is equivalent to about 10.3% of fuel demand in 2050.

- Used cooking oil (UCO) and animal fats categories 1 and 2 (part B of the RED's Annex IX): they are available in very limited quantities (limited to EU sourced feedstocks, to avoid driving unsustainable practices) and have a competing use with the road sector. As such, **the target for part B biofuels should be strictly capped at 0.65 Mtoe throughout the ReFuelUE period, which is equivalent to about 1.2% of aviation fuel demand.**

Instead, e-kerosene (produced from renewable electricity and captured CO_2) should be mandated already in 2025 with a sub-target of 0.03% (small, but meaningful to provide earlier incentives to invest in production capacity) and increasing it to 2% for 2030. Furthermore, a certain share of direct air capture (DAC) should be required from the first year of the mandate and rapidly progress to provide 100% of the CO_2 needed for e-kerosene production.

T&E recommends that: **ReFuelEU includes, alongside the already existing overall SAF target, 1): a maximum level for part B feedstocks, 2): a target for part A feedstocks, and 3): an increased minimum sub-target for e-kerosene (including a mandatory sub-share of DAC CO_2). T&E's preferred numbers are detailed below in Annex I.**

Further information

Matteo Mirolo
Aviation Policy Officer
Transport & Environment
matteo.mirolo@transportenvironment.org
+32(0)4 84 32 00 45

[4] Transport & Environment (2020). RED II and advanced biofuels. Recommendations about Annex IX of the Renewable Energy Directive and its implementation at national level.
[5] Transport & Environment (2021). E-kerosene mandate: key steps for ReFuelEU success.
[6] International Council on Clean Transportation (2021). Estimating sustainable aviation fuel feedstock availability to meet growing European Union demand.

Annex I: Preferred ReFuelEU targets

in Mtoe and percentage of aviation fuel demand (2.2% compound growth rate)

Year	Total	Part A biofuels	Part B biofuels	e-kerosene
2025	0.81 (1.6%)	0.14 (0.3%)	0.65 (1.3%)	0.016 (0.03%)
2030	3.00 (5.7%)	1.30 (2.5%)	0.65 (1.2%)	1.05 (2.0%)
2035	12.36 (22.6%)	4.50 (8.2%)	0.65 (1.2%)	7.21 (13.2%)
2040	28.91 (51.8%)	5.70 (10.2%)	0.65 (1.2%)	22.56 (40.4%)
2045	43.37 (77.3%)	5.84 (10.4%)	0.65 (1.2%)	36.88 (65.8%)
2050	56.88 (100.0%)	5.85 (10.3%)	0.65 (1.1%)	50.38 (88.6%)