

ReFuelEU

Bellona considers that the Refuel EU strategy fails to ensure that the aviation sector pull its weight when it comes to climate action. In fact, the proposed solutions for the sector to decarbonise are not guaranteed to help reduce emissions since there are no safeguards in place to prevent perverse outcomes.

We consider the targets proposed for synthetic fuels and biofuels to be deeply flawed. Without the necessary safeguards in place, it is likely that these targets will both divert significant resources from other mitigation efforts and increase emissions associated with the process of producing these fuels.

The specific target for e-fuels is too high given the weak sustainability criteria established in RED. Moreover, the high biofuels target will contribute to increasingly unsustainable biomass extraction, likely conflicting with other EU objectives. Moreover, the risk of companies opting to refuel outside Europe when a surge in price in Europe will arise will inevitably drive subsidies towards these unsustainable fuels.

Finally, there is no guarantee that carbon-based fuels will actually help mitigate climate change since no preference is given to biogenic or atmospheric CO₂. Without such a measure, fossil CO₂ will inherently be prioritised, which would affect the decarbonisation of point-sources and of the aviation sector simultaneously.

To avoid detrimental effects from the adoption of this strategy, Bellona proposes to adopt the following key recommendations:

First, the production of RNFBOs from industrial CO₂ sources could result in double-counting, by crediting the CO₂ emission mitigation to both the producer of the CO₂ feedstock and the user of the fuel. We support the Commission's ETS proposal which specifies that CO₂ used can only be considered as stored (i.e. not-emitted) if the carbon is “permanently chemically bound in a product so that they do not enter the atmosphere under normal use”. This will prevent double-counting by requiring the CO₂ producer to surrender a carbon allowance under the EU ETS, which would allow the aviation sector to claim the full climate reduction from the fuel. In the longer term, it is critical to ensure that any CO₂ used for RNFBO production be atmospheric in origin, to ensure climate neutrality.

Second, it is of vital important to include clauses on the [carbon source](#) to determine a fuel production process that has the potential to be carbon neutral or if it simply results in a slightly delayed emission. In short, we must ask: where is the CO₂ from, and where does it go?

Capturing CO₂ from the atmosphere and using it to produce a synthetic fuel has the potential to be carbon neutral – the same amount of CO₂ captured from the atmosphere will be released back to the atmosphere when the fuel is combusted. The atmospheric concentration of climate change causing

carbon dioxide will be unchanged. Emissions associated with the production process must also be considered for the fuel to be considered carbon neutral.

Capturing geologically-derived CO₂, such as from a Cement plant, **and using it to produce a synthetic fuel** has the ability to reduce emissions but **can never be carbon neutral**. Ultimately, the Fossil/Geological CO₂ is released into the atmosphere, contributing to an increased atmospheric concentration of CO₂.

Third, the use of CO₂ from ‘waste’ sources cannot be inherently considered as carbon neutral. Both waste emissions from industrial process and emissions originated from waste must be distinguished by their fossil and biogenic fractions, and only the biogenic fraction may be considered carbon neutral.

Finally, as e-fuels are produced by combining a carbon source with hydrogen, it’s crucial to ensure that the **hydrogen used for the production is truly low-carbon**, respecting the 3gCO₂/gH₂ threshold set by the taxonomy. This implies deploying additional renewable generation to cover the electricity requirements from green hydrogen production, as well as ensuring high capture rate and minimal methane leakage in the production of blue hydrogen.

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