

【欧州】 【航空】

Aviation - Gas emissions: European Parliament' s plenary adopts position on ReFuelEU Aviation initiative with higher shares of sustainable aviation fuels and synthetic fuels

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【概要 : Summary】

On 14 July 2021, the European Commission presented the ReFuelEU Aviation proposal as part of its “Fit for 55 “ package to revise the legislation related to the target of reducing the GHG emissions in the EU by at least 55% by 2030. Since the development of alternative propulsion systems in aviation like electric motors for commercial aircraft have not yet matured sufficiently, the Commission intends to introduce the ReFuelEU Aviation initiative (COM (2021) 562 final) to introduce a compulsory and increasing amount of sustainable aviation fuels (SAF) to be mixed with the fossil fuel-based kerosene supplied at EU airports.

To increase the uptake of SAFs by airlines, the ReFuelEU Aviation proposal (COM (2021) 561 final) also obliges airlines to prevent fuel tankering practices.

Following the Council of the European Union' s agreement on a general approach on the proposal COM (2021) 561 final on 2 June 2022, the European Parliament' s Committee on Transport and Tourism (TRAN Committee) adopted its draft report on the proposal on 27 June 2022. Thereafter, the European Parliament' s plenary voted on this report on 7 July 2022. The European Parliament' s plenary adopted the ReFuelEU Aviation proposal

with 334 votes in favour to 95 against and 153 abstentions.

The European Parliament' s plenary also voted in favour of several amendments to the original European Commission' s proposal. The scope of the proposal is widened and includes more aircraft and airports. Furthermore, the definition of sustainable aviation fuels is widened, while the exclusion of food and feed crop-based fuels, as proposed by the European Commission, is maintained.

Moreover, the European Parliament' s plenary agreed to strengthen the gradual increase of SAF levels towards reaching 85% by 2050, compared to 63% originally proposed by the European Commission. The European Parliament also agreed on the creation of a sustainable aviation fund to accelerate the decarbonisation of the aviation sector and supported the investment in sustainable aviation fuels and innovative aircraft propulsion technologies.

After the vote in plenary, the European Parliament is now ready to negotiate with the Council of the European Union the final text of the ReFuelEU Aviation legislation.

【記事 : Article】**1. The ReFuelEU Aviation initiative and sustainable aviation fuels**

The air transport sector brings significant socio-economic benefits but at the same time, the aviation sector is particularly difficult to decarbonise. Although the development of alternative propulsion technologies for aircraft may be realised in future, such technologies have not yet matured sufficiently for being introduced in commercial aviation. Due to its limited technological options for reducing GHG emissions, the aviation sector still relies almost entirely on fossil fuels, with more than 99% of jet fuel being used in the EU in 2018 (COM(2021) 561 final). In the coming decades, sustainable aviation fuels (SAFs) are considered to have most potential to offer GHG emissions reductions (COM(2021) 561 final). Accordingly, on 14 July 2021, the European Commission presented the “Fit for 55” package of necessary legal changes in legislation related to GHG emission reduction, including the ReFuelEU Aviation initiative (COM (2021) 561 final). The proposal ReFuelEU Aviation (COM (2021) 561 final) will oblige fuel suppliers to blend an increasing levels of sustainable aviation fuels (SAFs) into normal fossil-fuel based kerosene at EU airports. The fact that SAFs can be mixed with kerosene up to around 50% without any changes to the aircraft engine is an advantage at the beginning of a wider introduction of SAF.

The proposal COM (2021) 561 final introduces a gradually increasing share of SAFs in aviation fuels at EU airports and defines the minimum shares of SAFs, including a minimum share of synthetic fuel, to be supplied in the aviation fuel (European Parliament 2021). The mandate for the minimum of SAF blending volumes in aviation fuel will rise from 2% in 2025 to 5% in 2030 and 63% in 2050 (COM (2021) 561 final). Thereby, the ReFuelEU Aviation initiative could help to improve the aviation sector’s currently very

limited possibilities of reducing GHG emissions (COM (2021) 561 final).

The general objective is to reduce aviation CO₂ emissions in line with the 2030 and 2050 climate objectives of the EU, by enabling the transitioning from fossil jet fuel towards the use of SAFs, while at the same time ensuring a level playing field on the aviation market.

Aviation fuel suppliers will be obliged to ensure that all aviation fuel made available to aircraft operators at EU airports contains the mandatory minimum share of SAFs (European Parliament 2021). Moreover, synthetic aviation fuels will have a minimum share within the SAFs and when produced from renewable energies and carbon captured directly from the air, the potential emission savings compared to fossil aviation fuel could reach 100% (European Parliament 2021).

2. The European Parliament’s TRAN Committee’s amendments to the ReFuelEU Aviation proposal

In the European Parliament, the ReFuelEU Aviation proposal (COM (2021) 561 final) has been referred to the TRAN Committee as leading Committee with Søren Gade as rapporteur (Gade 2022a). The Committee on Environment, Public Health, and Food Safety (ENVI Committee) and Committee on Industry, Research and Energy (ITRE Committee) function as the associated, opinion-giving committees (Soone 2022). Rapporteur Gade presented his draft report on 11 February 2022. The report drafted by rapporteur Søren Gade widens the scope of the regulation to include more aircraft and airports and increases the proposal’s gradual increase in the share of SAFs to be supplied. Also, the ENVI Committee’s rapporteur Nicolás González Casares’ report called for greater ambition in the EU’s proposed ReFuelEU Aviation law, including a higher percentage of mandatory SAFs (ENVI Committee 2022). The SAF percentage should have reached 100% by 2050, with an increased sub-mandate for e-fuels from 28% to 65%, according to

the ENVI Committee's rapporteur (ENVI Committee 2022). However, the report adopted by the TRAN Committee increases the minimum share of synthetic aviation fuels that should be made available in EU airports to 50% of the 85% of SAFs, compared to the Commission's proposed share of synthetic fuels of 28% by 2050 and the 63% of SAFs compared to the 100% SAFs and 65% synthetic aviation fuels by 2050, as suggested by the ENVI Committee (TRAN Committee 2022, ENVI Committee 2022).

The vote in the TRAN Committee took place on 27 June 2022 and the committee adopted the rapporteur's report on ReFuelEU Aviation and amendments with 25 votes in favour, 6 against and 3 abstentions (Gade 2022a). From 1 January 2025, the minimum share of SAFs of 2% should include a minimum share of 0,04% of synthetic fuels, from 1 January 2030, a minimum share of 6% of SAF should include a minimum share of 2% of synthetic aviation fuels; and from 1 January 2035, the SAFs should reach a minimum share of 20% of which a minimum share of 5% is synthetic aviation fuels (TRAN Committee 2022). Finally, the minimum volume of SAF should reach 85% in 2050 compared to 63% in the Commission's proposal.

The definition of SAF includes synthetic aviation fuels, advanced biofuels produced from feedstock such as agricultural or forestry residues, algae and bio-waste, or biofuels produced from certain other feedstocks with "high sustainability potential", like used cooking oil, and certain animal fats that meet the sustainability and GHG emissions criteria. Thereby the MEPs also agreed to include in the definition of SAF synthetic fuels and certain biofuels, which are produced from agricultural or forestry residues, algae, bio-waste or used cooking oil. In particular, the definition covers recycled carbon fuels produced from waste processing gas and exhaust gas deriving from production process in industrial installations (TRAN Committee 2022).

Rapporteur Gade's proposal also considered electricity and hydrogen technologies in relation to the mandate on SAF when those technologies become mature and commercially available (Soone 2022). However, the report maintained the Commission's exclusion of food and feed crop-based fuels, and those derived from palm oil (TRAN Committee 2022). The TRAN Committee also suggests the creation of a sustainable aviation fund to accelerate the decarbonisation of the aviation sector and support investment in sustainable aviation fuels and innovative aircraft propulsion technologies (Gade 2022b).

3. The Council of the European Union's general approach on the ReFuelEU Aviation initiative

Already before the TRAN Committee adopted its report on 27 June 2022, the Council of the European Union agreed on its general approach on the proposal COM (2021) 561 final on 2 June 2022. The Council adopted its general approach on the ReFuelEU Aviation proposal and (ReFuelEU Aviation initiative and agreed on several changes to the Commission proposal. The Council's general approach retains the core aspects of the Commission's proposal, like the obligation for aviation fuel suppliers to ensure that all fuel made available to aircraft operators at EU airports contains a minimum share of SAF from 2025 and, from 2030, a minimum share of synthetic fuels. However, the changes agreed upon in the general approach include the expansion of the scope of eligible fuels, an extension of the transition period for the supply obligations to 10 years, a possibility for the competent authorities of the Member States to grant an exemption from the tankering provision for certain flights in the event of serious and recurrent operational difficulties and the possibility for Member States to apply the draft regulation to airports below a certain traffic threshold among others (Soone 2022, Council of

the EU 2022). Considering the gradual introduction of the blending mandate of SAFs, the Commission proposal started with a 2% SAF requirement in 2025, 5% in 2030, 20% in 2035, 32% in 2040, and 63% in 2050. The TRAN Committee agreed on a sub-mandate for e-fuels, such as hydrogen produced from electrolysis.

The Council also supports a minimum share of SAFs from 2025 and, from 2030, a minimum share of the sub-mandate for synthetic fuels. Even the Council suggested in its general approach an increase of SAF blending mandate from 5% to 6% of SAF in the year 2030. With this blending mandate and sub-mandate both shares will increase progressively until 2050 and the general approach also foresees an increase in the minimum share for 2030 from 5% to 6% of SAF (Council of the EU 2022).

The general approach also includes an obligation for aircraft operators to ensure that the yearly quantity of aviation fuel uplifted at a given EU airport is at least 90% of the yearly aviation fuel required, to combat and avoid the negative impacts of tankering. They also support reporting obligations for fuel suppliers and aircraft operators among others (Council of the EU 2022). However, the Council's general approach does amend some aspects of the European Commission proposal, with a view to facilitating and accelerating the development of SAF. This includes the extension of the scope regarding the aircraft operators covered and the extension of the scope of eligible SAFs and synthetic aviation fuels as well as the introduction of national flexibilities that give Member States the possibility to increase their sub-mandate of synthetic fuels at national level (Council of the EU 2022). Furthermore, they want to introduce the reporting obligations for fuel suppliers and the European Union Aviation Safety Agency (EASA) on the use of substances that give rise to non-CO₂ effects in aviation.

4. The European Parliaments vote in favour of ReFuelEU Aviation

In its vote on 7 July 2022, the European Parliament's plenary adopted its position on the ReFuelEU Aviation initiative towards an accelerated introduction of sustainable fuels with 334 votes in favour, 95 against and 153 abstentions (Directorate General for Communication European Parliament 2022).

The MEPs voted in favour of increasing the minimum share of SAF to be made available at EU airports in the Commission's original proposal. The Parliament's plenary also agreed on a widened definition of SAFs, which cover not only synthetic fuels or certain biofuels, produced from agricultural or forestry residues, algae, bio-waste or used cooking oil. Furthermore, the MEPs included under their definition recycled carbon fuels produced from waste processing gas, and exhaust gas deriving from the production process in industrial installations (Directorate General for Communication European Parliament 2022). The MEPs also suggested some biofuels, produced from animal fats or distillates, could be included in the aviation fuel mix for a limited time (until 2034). At the same time, they excluded feed and food crop-based fuels, and those derived from palm oil, soy-derived materials, and soap stock, because they do not align with the proposed sustainability criteria (Directorate General for Communication European Parliament 2022).

Moreover, the MEPs' adopted text includes renewable electricity and hydrogen as part of a sustainable fuel mix, thereby taking account of the potential of electricity and hydrogen in the overall fuel mix, as these are promising technologies that could progressively contribute to the decarbonisation of air transport (European Parliament 2022). The share of SAFs would rise from 2% in 2025, to 37% in 2040 and to 85% by 2050, compared to the Commission proposal of a 32% share for 2040 and 63% for 2050 (Directorate General for Communication European Parliament

2022). The European Parliament's voted in favour of the minimum share of SAFs to rise to 6% from 1 January 2030, which is in line with the Council's general approach, which also foresees a rise of the minimum share of SAFs for 2030 from 5% to 6% (Council of the EU 2022).

Regarding the minimum share of a sub-obligation for synthetic aviation fuels within the SAF requirement, the Parliament's plenary voted in favour of an earlier introduction compared to the Commission's proposal and an increased share of synthetic aviation fuels (European Parliament 2022). The Parliament wants to introduce a sub-obligation for synthetic aviation fuels already from 1 January 2025. From this date, a minimum share of 2% of SAF should be reached, out of which a minimum share of 0,04% synthetic fuels is required, compared to no synthetic fuel share for 2025 in the original Commission proposal. The minimum share of synthetic fuels would rise to 2% in 2030, 5% in 2035, 13% in 2040, 27% in 2045 and a 50% share of synthetic aviation fuels of the overall share of 85% minimum share of SAFs by 2050 (European Parliament 2022). Instead, the Commission's proposal included a sub-mandate for synthetic aviation fuels of 0.7% in 2030, 5% in 2035, 8% in 2040, 11% in 2045, and 28% in 2050. The Parliament also proposed the creation of a Sustainable Aviation Fund from 2023 to 2050 to accelerate the decarbonisation of the aviation sector and support investment in SAFs, as well as new aircraft propulsion technologies, and research for new engines. The MEPs also tasked the Commission with developing by 2024 an EU labelling system on the environmental performance of aircrafts, operators, and commercial flights (Directorate General for Communication European Parliament 2022).

After the vote in plenary on 7 July 2022, the European Parliament is now ready to start negotiations with the EU Member States in the Council to find a compromise on the final version of the ReFuelEU aviation legislation.

5. Conclusion

Contrary to the development of electric passenger cars for reducing GHG emissions in the road transport sector, zero emission aircraft are not yet available and options to decarbonise aviation are limited. In the absence of low to zero emission propulsion systems for commercial aircraft it is necessary to focus on the utilisation of SAFs and thereby to decarbonise aviation fuels, as the SAFs will be the main option to power aircraft and reduce GHG emissions in the decades to come.

Therefore, the European Commission also proposed the ReFuelEU Aviation initiative (COM (2021) 561 final) under the "Fit for 55" package to increase the share of renewable and sustainable fuels in aviation. The ReFuelEU Aviation (COM (2021) 561 final) will introduce a sector-specific gradually increasing blending mandate for SAFs and a sub-mandate for synthetic fuels to be used by airlines.

The ReFuelEU Aviation (COM (2021) 561 final) intends to oblige fuel suppliers to blend-in increasing levels of SAFs into the fossil-fuel based kerosene jet fuel at EU airports. The advantage that SAFs can be mixed with kerosene up to around 50% without the necessity to make any changes to the aircraft engines will be in particular important in the first two decades of the wider introduction of SAF in aviation. Towards the 2040s and 2050s, it can also be expected that a different generation of aircraft engines will become available.

While there exists large support of the objectives of the ReFuelEU Aviation (COM (2021) 561 final) proposal, and there are some overlaps in the Council's general approach and the European Parliament's vote, some differences in their position will require some compromises on the way to find an agreement on the final text. The Council's general approach retains the core aspects of the Commission's proposal, and while the Council also favours an earlier increase of

the minimum share of SAFs from 5% to 6% in 2030, the Parliament suggests an earlier introduction of the synthetic fuels' sub-mandate already from 2025. The different positions regarding the scope of aircraft operators, the level and timing of the mandates introduced in this ReFuelEU Aviation regulation and the definition of SAFs will have to be solved in a compromise on the future version of the ReFuelEU Aviation Regulation. The Council and the European Parliament will now be able to start their negotiations on the final version of the ReFuelEU Aviation Regulation.

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