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**REGULATORY SCRUTINY BOARD OPINION**

Proposal for a Regulation of the European Parliament and of the Council

on ensuring a level playing field for sustainable air transport

{COM(2021) 561}

{SWD(2021) 633}

{SWD(2021) 634}



Brussels,  
RSB

## **Opinion**

**Title: Impact assessment / ReFuelEU Aviation - Sustainable Aviation Fuels**

**Overall 2<sup>nd</sup> opinion: POSITIVE**

### **(A) Policy context**

The EU has committed to cut greenhouse gas (GHG) emissions by at least 55% by 2030 and achieve climate neutrality by 2050. These targets require ambitious policies to reduce emissions from all transport modes. GHG emissions from the aviation sector have increased since the 1990s at EU and global level. If unmitigated, these trends will continue into the future. In 2018, aviation accounted for 3.6% of the EU's GHG emissions (2% at global level) and for 13.2% of the emissions from EU transport. Aviation has been one of the fastest growing sectors in terms of CO<sub>2</sub> emissions over the past decades.

The technical possibilities to reduce the sector's dependence on fossil fuels are limited in the short and medium term. Sustainable aviation fuels (SAF) present the most technologically viable and least costly opportunity to decarbonise the sector. However, SAF uptake is very low, mainly due to the high cost compared to traditional jet fuel. This initiative is part of a basket of measures to reduce the aviation sector's emissions to reach the 2030/2050 commitments. It aims to unlock the potential of SAF via blending obligations. It is carried out in parallel with a similar initiative for the maritime sector (FuelEU Maritime).

### **(B) Summary of findings**

**The Board notes the improvements to the revised report responding to the Board's previous opinion. It explains the origin of the SAF targets, clarifies the content of the policy options and better justifies the need for a new instrument.**

**The Board gives a positive opinion. The Board considers that the report should further improve with respect to the following aspects:**

- (1) The report does not sufficiently explain how this initiative will interact with the other planned initiatives affecting aviation emissions..**
- (2) The report is not clear enough about the uncertainties underlying the impact assessment.**

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This opinion concerns a draft impact assessment which may differ from the final version.

### **(C) What to improve**

(1) The report should briefly explain why the transport sector should reduce its CO<sub>2</sub> emissions only by 90% by 2050. It should similarly clarify how this margin has been distributed across the transport sectors.

(2) The report shows that various climate initiatives affecting aviation (e.g. ETS, energy taxation, renewable energy) are coherent with the present initiative and that their climate objectives are compatible. However, it could still better demonstrate how direct regulatory measures (such as compulsory SAF uptake) interact with initiatives based on market incentives. The report could further develop this analysis and clarify how the various instruments contribute to the multiple objectives they pursue (SAF uptake, mitigating fuel price increase, fuel efficiency, promoting future technologies). The report should better explain how the monitoring and evaluation arrangements will help ensure complementarity between the various policy initiatives over time.

(3) The report should be more transparent about uncertainties underlying the analysis. For instance, the report should better reflect the uncertainty as to the likely price level of SAF and how this will affect the competitiveness of the sector. It should consider the risks of an increasing price gap between conventional and advanced fuels for the competitiveness of European intercontinental airport hubs. Given that third country network carriers will not be subject to EU anti-tankering and SAF obligations when competing for “indirect” long-haul traffic connecting via a third country hub, the impacts on cost-competitiveness of EU network carrier and EU hubs should be better assessed.

(4) Regarding the competition for feedstock, the report should not only look at aviation’s share in fuel production, but also at the possible impact on fuel prices given certain demand or supply price rigidities.

The Board notes the estimated costs and benefits of the preferred option(s) in this initiative, as summarised in the attached quantification tables.

### **(D) Conclusion**

**The DG may proceed with the initiative.**

**The DG must take these recommendations into account before launching the interservice consultation.**

**If there are any changes in the choice or design of the preferred option in the final version of the report, the DG may need to further adjust the attached quantification tables to reflect this.**

Full title	ReFuelEU Aviation - Sustainable Aviation Fuels
Reference number	Plan/2020/6623
Submitted to RSB on	9 February 2021
Date of RSB meeting	Written procedure

## **ANNEX: Quantification tables extracted from the draft impact assessment report**

The following tables contain information on the costs and benefits of the initiative on which the Board has given its opinion, as presented above.

If the draft report has been revised in line with the Board's recommendations, the content of these tables may be different from those in the final version of the impact assessment report, as published by the Commission.

<b><i>I. Overview of Benefits (total for all provisions) – Preferred Options - C1 and C2 (relative to the baseline, expressed as present value over 2021-2050)</i></b>		
<b><i>Description</i></b>	<b><i>Amount</i></b>	<b><i>Comments</i></b>
<b><i>Direct benefits</i></b>		
Reduction of air transport CO <sub>2</sub> emissions (well to wing) in 2050 compared to the baseline	-60.8% (C1) -60.2% (C2)	Direct benefit to society at large. It is the effect of the increasing participation of sustainable aviation fuel in the aviation jet fuel mix, in replacement of fossil jet fuel.
Reduction of external costs of CO <sub>2</sub> emissions from air transport relative to the baseline; additionally including the external costs of logistics (i.e. present value over 2021-2050)	EUR 86.3 billion (C1) EUR 85.8 billion (C2)	
Reduction of external costs related to air pollution relative to the baseline (i.e. present value over 2021-2050)	EUR 1.5 billion (C1 and C2)	Direct benefit to society at large. This reflects a reduction of air pollutant emissions (CO, NO <sub>x</sub> , PM). It results from a decrease in air transport activity by 2050 relative to the baseline.
Increased use in air transport of innovative fuel technologies with high decarbonisation potential (expressed in % of the jet fuel mix by 2050, compared to the baseline)	(C1) RFNBOs: 27.9% Advanced biofuels: 25.8%  (C2) RFNBOs: 23.9% Advanced biofuels: 28.7%	Significant increase of participation in the jet fuel mix of innovative technologies with high decarbonisation potential. These technologies are brought to the market earlier than under the baseline scenario. Prices of RFNBOs and advanced biofuels decrease over time compared to the current estimates.
<b><i>Indirect benefits</i></b>		
Employment (net additional jobs in 2050 compared to the	202,100 jobs (C1 and C2)	Increase in employment in the fuels industry compensate for employment reductions in air transport due to slight decrease of

baseline)		activity compared to the baseline.
Reduced dependence on oil imports in 2050 relative to the baseline	-65% (i.e. -31Mtoe) (C1 and C2)	Benefits for the EU's energy security and trade balance. Reduction of oil imports used for air transport, as a result of a decrease in fossil jet fuel use by 65% in 2050 (i.e. 31Mtoe) relative to the baseline.
Share of SAF produced in the EU (expressed as a share of total SAF supplied in 2050)	92% (C1 and C2)	Benefits for EU renewable fuels' industry and the EU economy at large. 92% of SAF supplied and used in the EU will be produced in the EU. 100% of feedstock and renewable energy used for SAF production will be EU-sourced.

(1) Estimates are relative to the baseline for the preferred option as a whole (i.e. the impact of individual actions/obligations of the preferred option are aggregated together); (2) Please indicate which stakeholder group is the main recipient of the benefit in the comment section; (3) For reductions in regulatory costs, please describe details as to how the saving arises (e.g. reductions in compliance costs, administrative costs, regulatory charges, enforcement costs, etc.; see section 6 of the attached guidance).

<b>II. Overview of costs – Preferred Options - C1 and C2 (relative to the baseline, expressed as present value over 2021-2050)</b>							
		Citizens/Consumers		Businesses		Administrations	
		One-off	Recurrent	One-off	Recurrent	One-off	Recurrent
<b>Compliance with SAF obligation</b>	Direct costs (relative to the baseline in present value over 2021-2050)	None		Capital investments in SAF production capacity by fuel producers EUR 10.5 billion (C1) EUR 10.4 billion (C2) - partly passed on to fuel suppliers	Additional cost of fuel for airlines EUR 103.5 billion (C1) EUR 88.2 billion (C2)  Additional administrative costs for airlines for fuel uplift EUR 0.34 billion (C1 and C2)		
	Indirect costs	None	Increase of ticket prices by 8.2% (C1) and 8.1% (C2) by 2050, compared to the baseline		Additional SAF fuel logistics costs EUR 0.19 billion (C1 and C2) - relative to the baseline in present value over 2021-2050		

					Reduced capital and operational costs of air transport due to lower transport activity. EUR 84 billion (C1) EUR 74.5 billion (C2) - relative to the baseline in present value over 2021-2050	
<b>Administrative and enforcement costs</b>	Direct costs			Cost for non-EU airlines to link to the new reporting stream on jet fuel uplift.  Negligible.	No additional costs.  Fuel suppliers report in Union database.  EU airlines report in EU ETS.	Admin costs for Member States EUR 264 million (relative to the baseline in present value over 2021-2050)  Admin costs for EU authorities EUR 2.7 million (relative to the baseline in present value over 2021-2050)
	Indirect costs					



Brussels,  
RSB

## **Opinion**

**Title: Impact assessment / ReFuelEU Aviation - Sustainable Aviation Fuels**

**Overall opinion: NEGATIVE**

### **(A) Policy context**

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The technical possibilities to reduce the sector's dependence on fossil fuels are limited in the short and medium term. Sustainable aviation fuels (SAF) present the most technologically viable and least costly opportunity to decarbonise the sector. However, SAF uptake is very low, mainly due to the high cost compared to traditional jet fuel. This initiative is part of a basket of measures to reduce the aviation sector's emissions to reach the 2030/2050 commitments. It aims to unlock the potential of SAF via blending obligations. It is carried out in parallel with a similar initiative for the maritime sector (FuelEU Maritime).

### **(B) Summary of findings**

**The Board notes the useful additional information provided in advance of and during the meeting, and commitments to make changes to the report.**

**However, the Board gives a negative opinion, because the report contains the following significant shortcomings:**

- (1) The report is unclear about how it has established the fuel specific targets and pathways for the aviation sector, and what the key assumptions and uncertainties are. It does not show how, and under what conditions, they are compatible with the overall EU 2030/2050 climate targets. The report does not analyse the implications and feasibility of alternative targets and pathways.**
- (2) The report is not sufficiently clear on how it ensures coherence with the other 'Fit for 55' initiatives. It does not explain how it takes into account the uncertainty on the future content of the most directly related climate initiatives.**
- (3) The report does not explain convincingly why the present initiative cannot be**

**integrated into existing instruments that are part of the ‘Fit for 55’ package.**

**(4) The report is not always clear on the content of the options and how they will function. It does not explain why there is no preferred option.**

**(C) What to improve**

(1) The report should explain how the fuel-specific targets (or parameters) for aviation were chosen. It should make clear how the proposed pathways towards these targets align with the GHG reduction targets of the Climate Law, and how they follow or differ from the Climate Target Plan modelling scenarios. The report should explain the assumptions behind the aviation fuel targets, and under what conditions they are compatible with targets for the other transport sectors.

(2) The report should justify why it does not include any alternative aviation fuel targets and pathways. It should present at least a qualitative analysis of the feasibility and implications of deviating from the set target, including for the overall ‘Fit for 55’ package.

(3) The report should better explain how the initiative is coherent with the most directly related other ‘Fit for 55’ initiatives (in particular the Renewable Energy Directive, the Emissions Trading System, and the Energy Taxation Directive). Would this initiative make some of the others superfluous in the aviation sector? As the baseline does not include the envisaged changes of the other ‘Fit for 55’ initiatives, the report should explain why it does not include alternative policy scenarios in the options to reflect the uncertainty on the future of these other initiatives.

(4) The baseline should further qualify the impact of the Covid-19 pandemic, its likely long-term consequences, and the degree of uncertainty of these estimates. It should conduct a sensitivity analysis to assess the possible effects of different Covid-19 scenarios on the effectiveness of the initiative.

(5) The report should explain why this initiative cannot be covered by the Renewable Energy Directive, given that blending of jet fossil fuels with SAF seems to be the only (realistic) technological option.

(6) The report should provide more detail on how far scaling up of SAF demand will contribute to reducing costs and prices. It should provide more detail about the sources of greater feedstock supply and competing demands. It should explain better the cost differences between standard and advanced biofuels. The report should also acknowledge the high-energy demand for producing biofuels. The impact assessment should be explicit about how coherence will be ensured with the EU’s overall renewable energy policy (e.g. for competition for feedstock, or accounting of total renewable targets), and how the risk for overlapping regulation is avoided.

(7) The report should further specify the content of the options and how they will work. For instance, it should clarify the foreseen monitoring arrangements, the role and set-up of the foreseen Agency. It should explain the functioning of a SAF certificates trading system, and clarify why it would be needed under the preferred option. It should justify the choice of values for the renewable fuels of non-biological origin (RFNBO) multipliers. It should explain why anti-tankering measures should already be introduced during the transition period, when the risk of tankering only arises after 2035.

(8) The competitiveness analysis should elaborate the risk that airlines will re-route long-haul flights to non-EU hubs. It should consider the consequences for the effectiveness of

the Directive, and the competitiveness of EU airlines and intercontinental airports.

(9) The report should more rigorously elaborate the impact analysis and comparison of options. It should clarify why it presents two alternative preferred options. To better inform policy makers' choice, it should clarify the main differences between them and indicate stakeholders' views.

*Some more technical comments have been sent directly to the author DG.*

**(D) Conclusion**

**The DG must revise the report in accordance with the Board's findings and resubmit it for a final RSB opinion.**

Full title	ReFuelEU Aviation - Sustainable Aviation Fuels
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