



2021/0205(COD)

20.1.2022

DRAFT OPINION

of the Committee on Industry, Research and Energy

for the Committee on Transport and Tourism

on the proposal for a regulation of the European Parliament and of the Council
Ensuring a level playing field for sustainable air transport
(COM(2021)0561 – C9-0332/2021 – 2021/0205(COD))

Rapporteur for opinion: Jutta Paulus

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SHORT JUSTIFICATION

Flying like a bird has been humankind's dream for ages. The legend of Icarus belongs to the first literary evidences, many others followed. Birds' flight, based on gliding on the wind or turning biomass into muscle power, was long thought the only possibility to overcome gravity. It was not until we understood the laws of physics and chemistry that humans took to the air. Using the very same laws of physics and chemistry, we know today about the threat of climate change.

It is this threat that inevitably makes it necessary to phase out fossil fuels in all sectors as soon as possible. According to the latest IPCC report, there is a 66 % chance of staying below 1.5 °C if future carbon emissions are limited to 400 Gt CO₂eq – or approx. 10 years of current emissions. Accordingly, the budget for a 50 % chance of staying below 1.5 °C is 500 Gt CO₂eq – 14 years of current emissions. Aviation emissions that are covered in the EU ETS have increased by 27.6 % since 2013 and are expected to return to pre-Covid levels by 2024. So far, the EU ETS covers however only roughly 20% of global aviation emissions. Apart from pricing CO₂, innovation and investment is needed in order to wean aviation from fossil fuels. However, due to its global character, no one felt responsible for the sector and action on making aviation sustainable was considered a competitive disadvantage. We can no longer wait for action to be happening at the ICAO but we need the EU to take the lead in advancing the deployment of sustainable aviation fuels.

Aviation is one of the most challenging sectors to decarbonise, as electrification will not be possible for most flights; we will need chemical carriers with their high energy density. Again, science leads the way. The landmass on this planet cannot be increased, let alone arable land to grow biomass which we will need to feed humans. Even advanced biofuels are limited due to this restriction, as the efficiency of photosynthesis lies well below 5%. Therefore, the only viable path is the development of renewable fuels based on solar and wind energy, which are abundantly available and have much higher area efficiency than biomass. The European Union has adopted the Climate Law, pledging to become climate neutral by 2050 at the latest. This legislation has to pave the way towards climate neutrality in aviation. It therefore should not incentivise investment in technologies with only limited potential to decarbonise the sector from fossil fuels. Instead, we need a determined move towards future-proof fuels, which will bring the European Union to the forefront of technological progress.

As climate disasters increase around the planet, more and more countries will take climate action to avert even bigger damages. It is then that early movement and technological leadership will give the EU a head start on other countries and provide business opportunities for European companies.

The rapporteur's priorities

The rapporteur welcomes the Commission proposal on ReFuelEU aviation to introduce an obligation on jet fuel supplier to blend a growing share of SAFs. With a SAF share of only 63% by 2050 though, the Commission does not aim to reach climate neutrality in the aviation sector and is therefore not in line neither with our EU climate targets, nor with the Paris Agreement. The rapporteur will therefore aim for a 100% share of SAF by 2040/2050.

Reduction of air traffic

Aviation, for all its obvious advantages such as connecting the world, moving people and freight at - formerly - incredible speed, is one of the most inefficient means to transport weight over distances. It is therefore important to reduce air traffic and switch to more energy efficient and sustainable transport modes like rail or water transport. If societal and environmental cost were included in ticket prices, at least short-haul flights for travel distances below 500 km would instantly cease to be economically viable.

Enlarging the scope of the regulation

The rapporteur considers the current threshold as not ambitious enough and will advocate to include all airports in the Regulation with at least 300.000 passengers per year. Together with including the 12 biggest airports in outermost regions, the Regulation would then cover 99.2% of the total number of passengers flying from an EU airport.

Quotas and new technologies

The rapporteurs regards it necessary to introduce quotas to provide incentives for investors and reach economies of scale. Further, the Regulation should not only look at SAFs but also other technologies like electric and hydrogen flights.

AMENDMENTS

The Committee on Industry, Research and Energy calls on the Committee on Transport and Tourism, as the committee responsible, to take into account the following amendments:

Amendment 1

Proposal for a regulation

Recital 1

Text proposed by the Commission

(1) Over the past decades, air transport has played ***a crucial*** role in the Union's economy ***and in the everyday lives of Union citizens***, as one of the best performing and most dynamic sectors of the Union economy. It has been a ***strong*** driver for economic growth, jobs, trade and tourism, as well as for connectivity and mobility for businesses and citizens alike, particularly within the Union aviation internal market. Growth in air transport services has significantly contributed to improving connectivity within the Union and with third countries, and has been ***a significant*** enabler of the Union economy.

Amendment

(1) Over the past decades, air transport has played ***an important*** role in the Union's economy, as one of the best performing and most dynamic sectors of the Union economy. It has been a driver for economic growth, jobs, trade and tourism, as well as for connectivity and mobility for businesses and citizens alike, particularly within the Union aviation internal market. Growth in air transport services has significantly contributed to improving connectivity within the Union and with third countries, and has been ***an*** enabler of the Union economy. ***However, such growth has created a concomitant increase in emissions due a consistent failure by regulators to adopt measures to decouple growth in passengers from growth in fossil fuel consumption. Subsidies such as tax exemptions and aircraft production grants have created a scenario where the sector will struggle to develop a zero-emissions future without determined regulatory action.***

Or. en

Amendment 2

Proposal for a regulation

Recital 2

Text proposed by the Commission

(2) From 2020, air transport has been one of the hardest hit sector by the COVID-19 crisis. With the perspective of an end to the pandemic in sight, it is expected that air traffic will gradually resume in the coming years and recover to its pre-crisis levels. At the same time, emissions from the sector have been increasing since 1990 and the trend of increasing emissions could return as we overcome the pandemic. Therefore, it is necessary to prepare for the future and make the necessary adjustments ensuring a well-functioning air transport *market* that contributes to achieving the Union's climate goals, *with high levels of connectivity, safety and security*.

Amendment

(2) From 2020, air transport has been one of the hardest hit sector by the COVID-19 crisis. With the perspective of an end to the pandemic in sight, it is expected that air traffic will gradually resume in the coming years and recover to its pre-crisis levels. At the same time, emissions from the sector have been increasing since 1990 and the trend of increasing emissions could return as we overcome the pandemic. ***Under current trends and adopted policies, i.e. without further Union level intervention, aviation is projected to remain almost entirely reliant on fossil jet fuel by 2050 and the Union CO₂ emissions from the aviation sector are projected to increase by 17% by 2030 and slightly more than 20% by 2050, relative to 2015, far away from the Union's targets of reducing its greenhouse gas emissions by at least 55% by 2030 and reaching net-zero greenhouse gas emissions by 2050 at the latest. The exclusive reliance on fossil fuels is a result of decades of regulatory and corporation inaction to develop sustainable alternative fuels and technologies.*** Therefore, it is necessary to prepare for the future and make the necessary adjustments ensuring a well-functioning *transport sector, including* air transport that contributes *fully* to achieving the Union's climate goals.

Or. en

Amendment 3

Proposal for a regulation
Recital 2 a (new)

Text proposed by the Commission

Amendment

(2a) *The significance of non-CO2*

climate impacts from aviation activities has been estimated to be at least twice as much as those of CO₂ alone^{1a} and should therefore be urgently mitigated. Reducing aromatic and sulphur content in conventional fossil fuel would not only provide climate benefits by reducing contrail induced warming at altitude, but also improve air quality around airports by reducing sulphur oxides, sulphur induced particulate matter, and soot. Reducing aromatics and sulphur will also improve the quality of the fuel and reduce costs, both through higher energy density and lower maintenance needs due to lower soot levels. Reducing aromatic content is a straightforward refinery process implementable today. This can be achieved by applying additional hydrogen during the refining process (e.g. by hydrotreating or extractive distillation) as is already standard practice to meet road and marine Union fuel quality standards. An effective measure should therefore be to require producers of fossil jet fuel to start progressively reduce - and then to phase out - aromatic and sulphur content. Aviation fuel suppliers should be required to monitor and communicate both aromatic and sulphur content in all batches of conventional aviation fuels placed on the Union market and report these levels on a quarterly basis to both the Agency and the Commission.

^{1a} Report from the Commission to the European Parliament and the Council - „Updated analysis of the non-CO₂ climate impacts of aviation and potential policy measures pursuant to EU Emissions Trading System Directive Article 30(4).” COM(2020) 747 final, 23.11.2020. See in particular pages 35-36: “Using a derivative metric of the Global Warming Potential (100), the GWP, aviation emissions are currently warming the climate at approximately three times the rate of that associated with CO₂ emissions

alone.”

Or. en

Amendment 4

Proposal for a regulation Recital 2 b (new)

Text proposed by the Commission

Amendment

(2b) Reducing overall aviation fuel demand constitutes an effective means to reduce flying's climate impact. With the right mechanism design, it will permit sustainable aviation fuel to constitute a greater share of the overall fuel supply to the sector. Measures to achieve such a reduction in overall fuel demand should include modal shift, elimination of direct and indirect subsidies to the sector, such as jet fuel tax and flight ticket VAT exemptions or ETS free allowances, prohibitions of flights on routes where viable sustainable alternatives exist and mandatory trainings for pilots.

Or. en

Amendment 5

Proposal for a regulation Recital 2 c (new)

Text proposed by the Commission

Amendment

(2c) The overarching principle of energy efficiency first should be taken into account across all sectors, going beyond the energy system, including road transport, shipping and aviation. In particular, it should be considered in policy, planning and investment decisions related to the deployment of more energy efficient engines and sustainable

alternative fuels and technologies, including regarding the speedy development of planes propelled by renewable electricity or green hydrogen .

Or. en

Amendment 6

Proposal for a regulation

Recital 3

Text proposed by the Commission

(3) The functioning of the Union air transport sector is determined by its cross-border nature across the Union, and by its global dimension. The aviation internal market is one of the most integrated sectors in the Union, governed by uniform rules on market access and operating conditions. The air transport external policy **is governed by rules** established at global level at the International Civil Aviation Organisation (ICAO), **as well as** by comprehensive multilateral or bilateral agreements between the Union or its Member States, and third countries.

Amendment

(3) The functioning of the Union air transport sector is determined by its cross-border nature across the Union, and by its global dimension. The aviation internal market is one of the most integrated sectors in the Union, governed by uniform rules on market access and operating conditions. The air transport external policy **needs to take into account the processes** established at global level at the International Civil Aviation Organisation (ICAO), **and** by comprehensive multilateral or bilateral agreements between the Union or its Member States, and third countries.

Or. en

Amendment 7

Proposal for a regulation

Recital 4

Text proposed by the Commission

(4) The air transport market is subject to strong competition between economic actors across the Union, for which a level playing field is indispensable. The stability and prosperity of the air transport market and its economic actors relies on a clear and harmonised policy framework where

Amendment

(4) The air transport market is subject to strong competition between economic actors across the Union, for which a level playing field is indispensable. The stability and prosperity of the air transport market and its economic actors relies on a clear and harmonised policy framework where

aircraft operators, airports and other aviation actors can operate on the basis of equal opportunities. Where market distortions occur, they risk putting aircraft operators or airports at a disadvantage with internal or external competitors. In turn, this can result in a loss of competitiveness of the air transport industry, and a loss of air connectivity for citizens and businesses.

aircraft operators, airports and other aviation actors can operate on the basis of equal opportunities. Where market distortions occur, they risk putting aircraft operators or airports at a disadvantage with internal or external competitors. In turn, this can result in a loss of competitiveness of the air transport industry, and a loss of air connectivity for citizens and businesses.

However, the threat to the industry from potential and unquantifiable market distortions is far outweighed by the threat to the industry caused by climate change and the industry's currently exclusive reliance on fossil jet fuel.

Or. en

Amendment 8

Proposal for a regulation Recital 6

Text proposed by the Commission

(6) A key objective of the common transport policy is sustainable development. This requires an integrated approach aimed at ensuring both the effective functioning of Union transport systems and protection of the environment. Sustainable development of air transport requires the introduction of measures aimed at reducing **the** carbon emissions from aircraft flying from Union airports. Such measures should contribute to meeting the Union's climate objectives by 2030 and 2050.

Amendment

(6) A key objective of the common transport policy is sustainable development. This requires an integrated approach aimed at ensuring both the effective functioning of Union transport systems and protection of the environment. Sustainable development of air transport requires the introduction of measures aimed at reducing **both carbon and non-CO2** emissions from aircraft flying from Union airports **and the development of effective economic instruments that ensure the true cost of emissions from the sector is fully internalised**. Such measures should contribute to meeting the Union's climate objectives by 2030 and 2050.

Or. en

Amendment 9

Proposal for a regulation Recital 7

Text proposed by the Commission

(7) The Communication on a Sustainable and Smart Mobility Strategy¹⁰ adopted by the Commission in December 2020 sets a course of action for the EU transport system to achieve its green and digital transformation and become more resilient. **The decarbonisation** of the air transport sector is a necessary and challenging process, especially in the short term. Technological advancements, pursued in European and national research and innovation aviation programmes have contributed to important emission reductions in the past decades. However, the global growth of air traffic has outpaced the sector's emissions reductions. Whereas new technologies are expected to help reducing **short-haul** aviation's reliance on fossil energy **in** the next **decades**, sustainable **aviation** fuels offer **the only** solution for **significant decarbonisation** of all flight ranges, already in the short term. However, this potential is currently largely untapped.

¹⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Sustainable and Smart Mobility Strategy – putting European transport on track for the future (COM/2020/789 final), 9.12.2020.

Amendment

(7) The Communication on a Sustainable and Smart Mobility Strategy adopted by the Commission in December 2020 sets a course of action for the EU transport system to achieve its green and digital transformation and become more resilient. **To achieve climate neutrality, the European Green Deal sets out the need to reduce transport emissions by 90% by 2050 (compared to 1990-levels). The reduction of CO2 and non-CO2 emissions** of the air transport sector is a necessary and challenging process, especially in the short term. Technological advancements, pursued in European and national research and innovation aviation programmes have contributed to important emission reductions in the past decades. However, the global growth of air traffic has outpaced the sector's emissions reductions. Whereas new technologies are expected to help reducing aviation's reliance on fossil energy **as from** the next **decade**, sustainable **advanced biofuels or synthetic** fuels **could** offer **a promising** solution for **moderating emissions** of all flight ranges, already in the short term. However, this potential is currently largely untapped.

¹⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: Sustainable and Smart Mobility Strategy – putting European transport on track for the future (COM/2020/789 final), 9.12.2020.

Or. en

Amendment 10

Proposal for a regulation Recital 7 a (new)

Text proposed by the Commission

Amendment

(7a) Given the unlikelihood of the aviation industry to become climate neutral in the short- to medium-term, it is necessary to ensure that the most sustainable transport mode is used for both passengers and freight where possible. In order to help the Union meet its overall emission reduction targets through its established environmental and transport objectives, there is a particular need for modal shift. Where sustainable alternatives exist, short-haul flights should be subject to higher mandates of sustainable fuels in order to incentivise the use of more sustainable transport modes, like trains, ferries and/or busses. For certain peripheral regions of the Union, there may not be any or indeed any sustainable alternatives available. The Commission should take this into consideration when reviewing this Regulation and when preparing the list of short-haul flights.

Or. en

Amendment 11

Proposal for a regulation Recital 8

Text proposed by the Commission

Amendment

(8) Sustainable aviation fuels are **liquid**, drop-in fuels, fully fungible with conventional aviation fuel and compatible with existing aircraft engines. Several production pathways of sustainable aviation fuels have been certified at global level for use in civil or military aviation.

(8) For the purpose of this Regulation, the definition of sustainable aviation fuels (SAF) should also extend to renewable liquid and gaseous fuels of non-biological origin, including hydrogen, and to electricity from renewable sources. This will enable

Sustainable aviation fuels are technologically ready to play *an important* role in reducing emissions from air transport already in the very short term. They are expected to account for a major part of the aviation fuel mix in the medium *and* long term. Further, with the support of appropriate international fuel standards, sustainable aviation fuels might contribute to lowering the aromatic content of the final fuel used by an operator, thus helping to reduce other non-CO₂ emissions. *Other alternatives to power aircraft, such as electricity or liquid hydrogen are expected to progressively contribute to the decarbonisation of air transport, beginning with short-haul flights.*

energy sources for new propulsion pathways such as renewable hydrogen and electricity to count towards the SAF mandate, thus creating incentives for technological and industrial innovation in the Union. Sustainable aviation fuels are *therefore renewable alternative fuels to power aircrafts that can replace fossil aviation fuels. They are expected to substitute fully these fossil fuels by 2050 at the latest. While renewable electricity or renewable hydrogen powered aircrafts are expected to be commercially available in the medium term,* drop-in *alternative* fuels, fully fungible with conventional aviation fuel and compatible with existing aircraft engines *are already accessible.* Several production pathways of sustainable *drop-in* aviation fuels have been certified at global level for use in civil or military aviation. Sustainable *drop-in* aviation fuels are technologically ready to play *a* role in reducing emissions from air transport already in the very short term. They are expected to account for a major part of the aviation fuel mix in the medium *term and for all aviation fuel in the* long term. Further, with the support of appropriate international fuel standards, sustainable aviation fuels might contribute to lowering the aromatic content of the final fuel used by an operator, thus helping to reduce other non-CO₂emissions.

Or. en

Amendment 12

Proposal for a regulation Recital 10

Text proposed by the Commission

(10) At global level, sustainable aviation fuels *are regulated at ICAO. In particular, ICAO establishes detailed* requirements on the sustainability, *traceability and*

Amendment

(10) At *the* global level, *countries diplomatically engage on certification pathways and other SAFs* requirements *and objectives through ICAO. These*

accounting of sustainable aviation fuels for use on flights covered by the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). While incentives are set in CORSIA and sustainable aviation fuels are considered an integral pillar of the work on the feasibility of a Long-Term Aspiration Goal for international aviation, there is currently no mandatory scheme on the use of sustainable aviation fuels for international flights. Comprehensive multilateral or bilateral air transport agreements between the EU or its Member States, and third countries generally include provisions on environmental protection. However, for the time being, such provisions do not impose on contracting parties any binding requirements on the use of sustainable aviation fuels.

include the sustainability criteria which the ICAO Council recently adopted in 2021 for SAF to be eligible for consideration under the Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA). While incentives are set in CORSIA and sustainable aviation fuels are considered an integral pillar of the work on the feasibility of a Long-Term Aspiration Goal for international aviation, there is currently no mandatory scheme on the use of sustainable aviation fuels for international flights. Comprehensive multilateral or bilateral air transport agreements between the EU or its Member States, and third countries generally include provisions on environmental protection. However, for the time being, such provisions do not impose on contracting parties any binding requirements on the use of sustainable aviation fuels.

Or. en

Amendment 13

Proposal for a regulation

Recital 15

Text proposed by the Commission

(15) The present Regulation should apply to aircraft engaged in civil aviation, carrying out commercial air transport flights. It should not apply to ***aircraft such as military aircraft and*** aircraft engaged in operations for humanitarian, search, rescue, disaster relief or medical purposes, as well as customs, police and fire-fighting operations. Indeed, flights operated in such circumstances are of exceptional nature and as such cannot always be planned in the same way as regular flights. Due to the nature of their operations, they may not always be in a position to fulfil obligations under this Regulation, as it may represent

Amendment

(15) The present Regulation should apply to aircraft engaged in civil aviation, carrying out commercial air transport flights, ***to business aviation, to pleasure flights and to military aircraft, carrying troops or military equipment or supplies.*** It should not apply to aircraft engaged in operations for humanitarian, search, rescue, disaster relief or medical purposes, as well as customs, police and fire-fighting operations. Indeed, flights operated in such circumstances are of exceptional nature and as such cannot always be planned in the same way as regular flights. Due to the nature of their operations, they may not

unnecessary burden. In order to cater for a level playing field across the EU aviation single market, this regulation should cover the largest possible share of commercial air traffic operated from airports located on EU territory. At the same time, in order to safeguard air connectivity for the benefits of EU citizens, businesses and regions, it is important to avoid imposing undue burden on air transport operations at small airports. A threshold of yearly passenger air traffic and freight traffic should be defined, below which airports would not be covered by this Regulation; however, the scope of the Regulation should cover **at least 95% of total** traffic departing from airports in the Union. For the same reasons, a threshold should be defined to exempt aircraft operators accountable for a very low number of departures from airports located on EU territory.

always be in a position to fulfil obligations under this Regulation, as it may represent unnecessary burden. In order to cater for a level playing field across the EU aviation single market, this regulation should cover the largest possible share of commercial air traffic operated from airports located on EU territory. At the same time, in order to safeguard air connectivity for the benefits of EU citizens, businesses and regions, it is important to avoid imposing undue burden on air transport operations at **very** small airports. A threshold of yearly passenger air traffic and freight traffic should be defined, below which airports would not be covered by this Regulation **during a transition period. For the same reason of safeguarding air connectivity, the aviation fuel suppliers situated in outermost regions - as listed in Article 349 of the Treaty on the Functioning of the European Union - should be temporarily exempted from the SAF obligations.** However, the scope of the Regulation should **at a certain moment in the future** cover **all** traffic departing from airports in the Union. For the same reasons, a threshold should be defined to exempt aircraft operators accountable for a very low number of departures from airports located on EU territory.

Or. en

Amendment 14

Proposal for a regulation Recital 22

Text proposed by the Commission

(22) Airports covered by this Regulation should ensure that all the necessary infrastructure is provided for delivery, storage and refuelling of sustainable aviation fuel, so as not to constitute an obstacle with respect to the uptake of such

Amendment

(22) Airports covered by this Regulation should ensure that all the necessary infrastructure is provided for delivery, storage and refuelling of sustainable aviation fuel, so as not to constitute an obstacle with respect to the uptake of such

sustainable aviation fuel. If necessary, the Agency should be able to require a Union airport to provide information on the infrastructure available allowing for seamless distribution and refuelling of aircraft operators with sustainable aviation fuels. The role of the Agency should allow airports and airlines to have a common focal point, in the event where technical clarification is necessary on the availability of fuel infrastructure.

sustainable aviation fuel. ***This obligation should include providing electric recharging infrastructure capacity and hydrogen refuelling infrastructure capacity, commensurate with the uptake of electric aircraft and renewable hydrogen propelled aircraft.*** If necessary, the Agency should be able to require a Union airport to provide information on the infrastructure available allowing for seamless distribution and refuelling of aircraft operators with sustainable aviation fuels. The role of the Agency should allow airports and airlines to have a common focal point, in the event where technical clarification is necessary on the availability of fuel infrastructure.

Or. en

Amendment 15

Proposal for a regulation Recital 22 a (new)

Text proposed by the Commission

Amendment

(22a) Many Union airports are supplied with aviation fuel principally via pipelines from refineries or blending stations where SAF blending to meet safety and sustainability specifications needs to take place. Many of these pipelines are owned and controlled by Member states or by NATO forces and a longstanding prohibition on their use to transport SAF remains in place across the Union. Delivering SAF to Union airports in sufficient quantities to meet the provisions set out in Annex I by alternate means such as by road/ truck from refineries and blending stations is logistically, practically and from a cost and CO2 penalty perspective infeasible. It will be essential to use these - military - pipelines in addition to pipelines owned by fuel suppliers - where they exist - as well as

rail facilities already in place, in order to deliver the minimum SAF required under this Regulation.

Or. en

Amendment 16

Proposal for a regulation

Recital 28

Text proposed by the Commission

(28) In order to ensure a level playing field of the aviation internal market and the adherence to the climate ambitions of the Union, this Regulation should introduce effective, proportionate and dissuasive penalties on aviation fuel suppliers and aircraft operators in case of non-compliance. The level of the penalties needs to be proportionate to the environmental damage and to the prejudice to the level-playing field of the internal market inflicted by the non-compliance. When imposing *administrative* fines, the authorities should take into account the evolution of the price of aviation fuel and sustainable aviation fuel in the reporting year;

Amendment

(28) In order to ensure a level playing field of the aviation internal market and the adherence to the climate ambitions of the Union, this Regulation should introduce effective, proportionate and dissuasive penalties on aviation fuel suppliers and aircraft operators in case of non-compliance. The level of the penalties needs to be proportionate to the environmental damage and to the prejudice to the level-playing field of the internal market inflicted by the non-compliance. When imposing fines, the authorities should take into account the evolution of the price of aviation fuel and sustainable aviation fuel in the reporting year;

Or. en

Amendment 17

Proposal for a regulation

Recital 29

Text proposed by the Commission

(29) The penalties for the suppliers who fail to meet the targets set in this Regulation should be complemented by the obligation to supply the market with the shortfall of meeting the quota in the

Amendment

(29) ***The revenues generated from the payment of penalties should be used to promote the distribution and use of sustainable aviation fuels and related new technologies in the aviation sector and***

subsequent year;

help aviation operators to meet their climate and environmental goals. For this purpose these revenues should be allocated to the Innovation Fund referred to in Article 10a (8) of Directive 2003/87/EC. The penalties for the suppliers who fail to meet the targets set in this Regulation should be complemented by the obligation to supply the market with the shortfall of meeting the quota in the subsequent year;

Or. en

Amendment 18

Proposal for a regulation Article 3 – paragraph 1 – indent 1

Text proposed by the Commission

— ‘Union airport’ means ***an*** airport as defined in Article 2(2) of Directive 2009/12/EC of the European Parliament and of the Council¹³, ***where passenger traffic was higher than 1 million passengers or where the freight traffic was higher than 100000 tons in the reporting period, and is not situated in an outermost region, as listed in Article 349 of the Treaty on the Functioning of the European Union;***

¹³ Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges

Amendment

— ‘Union airport’ means ***a civil or military*** airport as defined in Article 2(1) of Directive 2009/12/EC of the European Parliament and of the Council;

¹³ Directive 2009/12/EC of the European Parliament and of the Council of 11 March 2009 on airport charges

Or. en

Amendment 19

Proposal for a regulation Article 3 – paragraph 1 – indent 2

Text proposed by the Commission

— ‘aircraft operator’ means a person that operated at least **729** commercial air transport flights departing from Union airports in the reporting period or, where that person may not be identified, the owner of the aircraft;

Amendment

— ‘aircraft operator’ means a person that operated at least **365** commercial air transport **or any business aviation** flights departing from Union airports in the reporting period or, where that person may not be identified, the owner of the aircraft;

Or. en

Amendment 20

Proposal for a regulation

Article 3 – paragraph 1 – indent 2 a (new)

Text proposed by the Commission

Amendment

- ***‘business aviation’ means the operation or use of aircraft by companies or individuals for the carriage of passengers or goods as an aid to the conduct of their business, flown for purposes generally considered not for public hire and piloted by individuals having, at the minimum, a valid commercial pilot license with an instrument rating;***

Or. en

Amendment 21

Proposal for a regulation

Article 3 – paragraph 1 – indent 3 a (new)

Text proposed by the Commission

Amendment

- ***‘private pleasure-flying’ means the use of an aircraft by its owner or the natural or legal person who enjoys its use, including through hire, for other than commercial purposes;***

Amendment 22

Proposal for a regulation

Article 3 – paragraph 1 – indent 3 b (new)

Text proposed by the Commission

Amendment

- ***‘short-haul flights’ means a flight between two Union airports, where the distance between these airports is less than 1 000 km as the crow flies;***

Or. en

Amendment 23

Proposal for a regulation

Article 3 – paragraph 1 – indent 3 c (new)

Text proposed by the Commission

Amendment

- ***‘Sustainable alternative to a short-haul flight’ means that passengers and goods can travel on a more sustainable scheduled collective transport mode e.g. train (including night trains), bus or ferry options, to a destination that is served by a short-haul flight, and for which the travel time lasts no more than 6 hours or less than 12 hours by night train services;***

Or. en

Amendment 24

Proposal for a regulation

Article 3 – paragraph 1 – indent 5

Text proposed by the Commission

Amendment

— ‘sustainable aviation fuels’ (‘SAF’) means ***drop-in*** aviation fuels that are either

— ‘sustainable aviation fuels’ (‘SAF’) means aviation fuels that are either

synthetic aviation fuels, advanced biofuels as defined in Article 2, second paragraph, point 34 of Directive (EU) 2018/2001, or biofuels produced from the feedstock listed in Part B of Annex IX to that Directive, which comply with the sustainability and greenhouse gas emissions criteria laid down in Article 29(2) to (7) of that Directive and are certified in accordance with Article 30 of this Directive;

electricity or hydrogen from renewable energy sources, drop in synthetic aviation fuels, advanced biofuels as defined in Article 2, second paragraph, point 34 of Directive (EU) 2018/2001, or biofuels produced from the feedstock listed in Part B of Annex IX to that Directive, which comply with the sustainability and greenhouse gas emissions criteria laid down in Article 29(2) to (7) of that Directive and are certified in accordance with Article 30 of this Directive;

Or. en

Amendment 25

Proposal for a regulation Article 3 – paragraph 1 – indent 8

Text proposed by the Commission

— ‘synthetic aviation fuels’ means fuels that are renewable fuels of non-biological origin, as defined in Article 2, second paragraph, point 36 of Directive (EU) 2018/2001, used in aviation;

Amendment

— ‘synthetic aviation fuels’ ***or ‘e-kerosene’*** means ***aviation*** fuels that are renewable fuels of non-biological origin, as defined in Article 2, second paragraph, point 36 of Directive (EU) 2018/2001, ***which are generated by combining hydrogen (H₂) produced from additional renewable electricity and carbon dioxide (CO₂) captured directly from the atmosphere, i.e. a process otherwise known as direct air capture (DAC)***, used in aviation;

Or. en

Amendment 26

Proposal for a regulation Article 3 – indent 16 a (new)

Text proposed by the Commission

Amendment

— ***‘direct air capture’ means the***

process by which CO₂ is captured directly from the ambient air and not from point sources;

Or. en

Amendment 27

Proposal for a regulation Article 3 – indent 16 b (new)

Text proposed by the Commission

Amendment

— *‘electricity from renewable energy sources’ or ‘renewable electricity’ means electricity produced from renewable energy sources as defined in Article 2, second paragraph, point 1 of Directive (EU) 2018/2001;*

Or. en

Amendment 28

Proposal for a regulation Article 3 – indent 16 c (new)

Text proposed by the Commission

Amendment

— *‘hydrogen from renewable energy sources’ or ‘renewable hydrogen’ means hydrogen produced from renewable electricity or from fuels that are renewable liquid or gaseous of non-biological origin, as defined in Article 2, second paragraph, point 36 of Directive (EU) 2018/2001;*

Or. en

Amendment 29

Proposal for a regulation Article 4 – paragraph 1

Text proposed by the Commission

Aviation fuel suppliers shall ensure that all aviation fuel made available to aircraft operators at each Union airport contains a minimum share of sustainable aviation fuel, including a minimum share of synthetic aviation fuel in accordance with the values and dates of application set out in Annex I.

Amendment

From 1 January 2025 to 31 December 2029, aviation fuel suppliers shall ensure that all aviation fuel made available to aircraft operators at each Union airport where passenger traffic was higher than 300 000 passengers or where the freight traffic was higher than 20 000 tons in the reporting period, and is not situated in an outermost region, as listed in Article 349 of the Treaty on the Functioning of the European Union contains a minimum share of sustainable aviation fuel, including a minimum share of synthetic aviation fuel in accordance with the values and dates of application set out in Annex I.

Or. en

Amendment 30

Proposal for a regulation Article 4 – paragraph 1 a (new)

Text proposed by the Commission

Without prejudice to the application of Article 14, from 1 January 2030 to 31 December 2049, aviation fuel suppliers shall ensure that all aviation fuel made available to aircraft operators at each Union airport contains a minimum share of sustainable aviation fuel, including a minimum share of synthetic aviation fuel in accordance with the values and dates of application set out in Annex I.

Or. en

Amendment 31

Proposal for a regulation

Article 4 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

By 1 January 2025, Member States shall take all necessary measures to allow the continued and uninterrupted access of aviation fuel suppliers to military and civil transport aviation fuels infrastructure to supply both conventional aviation fuels and aviation fuels containing shares of sustainable aviation fuels in accordance with Annex I to all Union airports.

Or. en

Amendment 32

Proposal for a regulation

Article 4 a (new)

Text proposed by the Commission

Amendment

Article 4a

Lowering non-CO2 impact of jet fuels

- 1. Aviation fuel suppliers shall ensure that all aviation fuel made available to aircraft operators at each Union airport doesn't contain level of aromatics exceeding 8% and level of sulphur exceeding 10 ppm.***
- 2. By 1 January 2024 and every three years thereafter, the Commission shall submit a report on the evaluation of paragraph 1 to the European Parliament and the Council. The reports shall be made public.***

Or. en

Justification

When aromatics are present in fuels, they encourage non-volatile Particulate Matter (nvPM)

formation during combustion. Hence, lower aromatics in fuels provide a cleaner burn and reduced nvPM emissions, which are directly linked to contrail cirrus formation that have a net positive (warming) climate forcing effect. Furthermore, reducing aromatics/soot in kerosene leads to less sulphur in kerosene. Sulphur in kerosene and other fossil fuels when combusted produces SO₂, which forms PM harmful to human health. Contrary to EU mandatory maximum content of sulphur in both road and marine, there is no regulatory limit on sulphur in kerosene in the EU today. Refuel EU should therefore mandate fuel suppliers to cut both aromatics and sulphur now.

Amendment 33

Proposal for a regulation

Article 5 a (new)

Text proposed by the Commission

Amendment

Article 5a

Obligations for aircraft operators operating short-haul flights

1. Aircraft operators operating a short-haul flight with a sustainable alternative shall comply with the following minimum shares of sustainable aviation fuels:

- 25% in 2025

- 50% in 2030

- 100% in 2035.

2. By 1 January 2023, the Commission shall draw up a list of all short-haul flight journeys in the Union and available sustainable alternatives. This list shall be made available on a publicly accessible website in all of the Union's official languages. This list shall detail the typical greenhouse gas emissions each mode produces for each journey and the average duration of each journey by mode.

3. Aircraft operators shall provide their customers before the customers make their booking with information on the comparative environmental footprint, and particularly on greenhouse gas emissions per passenger per kilometre

travelled, of the flight and alternative transport modes for that booking pursuant to Regulation (EC) No 80/2009 of the European Parliament and of the Council of 14 January 2009 on a Code of Conduct for computerised reservation systems and repealing Council Regulation (EEC) No 2299/89.

Or. en

Amendment 34

Proposal for a regulation Article 5 b (new)

Text proposed by the Commission

Amendment

Article 5b

Additional requirements for private pleasure-flying

1. An aircraft operator operating a private pleasure-flying flight shall comply with the following minimum shares of sustainable aviation fuels:

- 25% in 2025

- 50% in 2030

- 100% in 2035.

Or. en

Amendment 35

Proposal for a regulation Article 6 – paragraph 1

Text proposed by the Commission

Amendment

Union airports shall take necessary measures to facilitate the access of aircraft operators to ***aviation fuels containing shares of*** sustainable aviation fuels ***in accordance with Annex I and,*** shall

Union airports shall take necessary measures to facilitate the access of aircraft operators to sustainable aviation fuels ***and*** shall provide ***all*** the infrastructure necessary for the delivery, ***electric***

provide the infrastructure necessary for the delivery, storage and uplifting of such fuels.

recharging, renewable hydrogen refuelling, storage and uplifting of such fuels ***in accordance with Annex I***.

Or. en

Amendment 36

Proposal for a regulation Article 7 – paragraph 1 – point e a (new)

Text proposed by the Commission

Amendment

(ea) For each short-haul flight with a sustainable alternative, proof that the percentages referred to in Article 5a were adhered to.

Or. en

Amendment 37

Proposal for a regulation Article 7 – paragraph 1 – point e b (new)

Text proposed by the Commission

Amendment

(eb) For each private pleasure-flying flight, proof that the percentages referred to in Article 5b were adhered to.

Or. en

Amendment 38

Proposal for a regulation Article 9 – paragraph 1 – point c a (new)

Text proposed by the Commission

Amendment

(ca) The percentage of each type of sustainable aviation fuel contained in each batch of conventional aviation fuel

supplied at each Union airport;

Or. en

Amendment 39

Proposal for a regulation

Article 9 – paragraph 2 a (new)

Text proposed by the Commission

Amendment

From 1 January 2023 and every quarter of year thereafter, aviation fuel suppliers shall report to the Commission and the Agency the following information relative to the previous quarter of year:

(a) The average aromatic content of conventional aviation fuel per each batch supplied at each Union airport;

(b) The average sulphur content of conventional aviation fuel per each batch supplied at each Union airport.

Or. en

Amendment 40

Proposal for a regulation

Article 11 – paragraph 2

Text proposed by the Commission

Amendment

(2) Member States shall ensure that any aircraft operator failing to comply with the obligations laid down in Article 5 is liable to **an administrative** fine. That fine shall be at least twice as high as the multiplication of the yearly average price of aviation fuel per tonne and of the total yearly non-tanked quantity;

2. Member States shall ensure that any aircraft operator failing to comply with the obligations laid down in Article 5 is liable to **a** fine. That fine shall be at least twice as high as the multiplication of the yearly average price of aviation fuel per tonne and of the total yearly non-tanked quantity;

Or. en

Amendment 41

Proposal for a regulation Article 11 – paragraph 3

Text proposed by the Commission

(3) Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of sustainable aviation fuels is liable to **an administrative** fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of conventional aviation fuel and sustainable aviation fuel per tonne and of the quantity of aviation fuels not complying with the minimum share referred to in Article 4 and Annex I;

Amendment

3. Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of sustainable aviation fuels **and in Article 4a relative to the maximum share of aromatics and sulphur of conventional aviation fuels** is liable to **a** fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of conventional aviation fuel and sustainable aviation fuel per tonne and of the quantity of aviation fuels not complying with the minimum share referred to in Article 4 and Annex I;

Or. en

Amendment 42

Proposal for a regulation Article 11 – paragraph 4

Text proposed by the Commission

(4) Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of synthetic aviation fuels is liable to **an administrative** fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of synthetic aviation fuel and conventional aviation fuel per tonne and of the quantity of the aviation fuel not complying with the minimum share referred to in Article 4 and Annex I;

Amendment

4. Member States shall ensure that any aviation fuel supplier failing to comply with the obligations laid down in Article 4 relative to the minimum share of synthetic aviation fuels **and in Article 4a relative to the maximum share of aromatics and sulphur of conventional aviation fuels** is liable to **a** fine. That fine shall be at least twice as high as the multiplication of the difference between the yearly average price of synthetic aviation fuel and conventional aviation fuel per tonne and of the quantity of the aviation fuel not complying with the minimum share referred to in Article 4 and Annex I;

Amendment 43

Proposal for a regulation Article 11 – paragraph 5

Text proposed by the Commission

(5) In the decision imposing the **administrative** fines referred to in paragraphs 3 and 4, the competent authority shall explain the methodology applied for the determination of the price of aviation fuel, sustainable aviation fuel and synthetic aviation fuel on the Union market, based on verifiable and objective criteria;

Amendment

5. In the decision imposing the fines referred to in paragraphs 3 and 4, the competent authority shall explain the methodology applied for the determination of the price of aviation fuel, sustainable aviation fuel and synthetic aviation fuel on the Union market, based on verifiable and objective criteria;

Or. en

Amendment 44

Proposal for a regulation Article 11 – paragraph 7

Text proposed by the Commission

(7) Member States shall have the necessary legal and administrative framework in place at national level to ensure the fulfilment of the obligations and the collection of the **administrative fines**. **Member States shall transfer the amount collected through those administrative fines as contribution to the InvestEU Green Transition Investment Facility, as a top-up to the EU guarantee.**

Amendment

7. Member States shall have the necessary legal and administrative framework in place at national level to ensure the fulfilment of the obligations and the collection of the **fines**.

Or. en

Amendment 45

Proposal for a regulation Article 11 a (new)

Text proposed by the Commission

Amendment

Article 11a

Allocation of penalties to support Sustainable Aviation Fuels in the aviation sector

1. The revenues generated from penalties referred to in Article 11(1) shall be allocated to support common projects aimed at the rapid deployment of sustainable aviation fuels in the aviation sector. Projects financed by the funds collected from the penalties shall stimulate the production of greater quantities of renewable electricity, CO₂ from direct air capture (DAC) and sustainable aviation fuels for the aviation sector, facilitate the construction of appropriate SAF tankering, renewable electric and renewable hydrogen storage facilities, and support the rapid development, testing and deployment of planes propelled by renewable electricity and renewable hydrogen.

2. The revenues generated from penalties referred to in paragraph 1 shall be allocated to the Innovation Fund referred to in Article 10a (8) of Directive 2003/87/EC. These revenues shall constitute external assigned revenue in accordance with Article 21(5) of the Financial Regulation, and shall be implemented in accordance with the rules applicable to the Innovation Fund.

Or. en

Amendment 46

Proposal for a regulation Article 13

Text proposed by the Commission

Amendment

Article 13

Transitional period

By way of derogation from Article 4, from 1 January 2025 until 31 December 2029, for each reporting period, an aviation fuel supplier may supply the minimum share of sustainable aviation fuel defined in Annex I as a weighted average over all the aviation fuel it supplied across Union airports for that reporting period.

deleted

Or. en

Amendment 47

**Proposal for a regulation
Article 14 – paragraph 1**

Text proposed by the Commission

Amendment

By 1 January **2028** and every five years thereafter, the Commission **services** shall **present** a report to the European Parliament and the Council, on the evolution of the aviation fuels market and its impact on the aviation internal market of the Union, including regarding the possible extension of the scope of this Regulation to other energy sources, and other types of synthetic fuels defined under the Renewable Energy Directive, the possible revision of the minimum shares in Article 4 and Annex I, and the level of administrative fines. The report shall include information, where available, on development of a potential policy framework for uptake of sustainable aviation fuels at ICAO level. The report shall also inform on technological advancements in the area of research and innovation in the aviation industry which are relevant to sustainable aviation fuels, including with regards to the reduction of

1. By 1 January **2027** and every five years thereafter, the Commission shall **submit** a report **on the evaluation of this Regulation** to the European Parliament and the Council **and shall, if appropriate, submit legislative proposals to amend this Regulation. The report shall be made public.**

non-CO₂ emissions. *The report may consider if this Regulation should be amended and, options for amendments, where appropriate, in line with a potential policy framework on sustainable aviation fuels uptake at ICAO level.*

2. For the purpose of this Article, the Commission shall report on the evolution of the aviation fuels market and its impact on the aviation internal market of the Union, including regarding the possible extension of the scope of this Regulation to other energy sources, and other types of synthetic fuels defined under the Renewable Energy Directive, the possible revision of the minimum shares in Article 4 and Annex I, and the level of administrative fines. The report shall include information, where available, on development of a potential policy framework for uptake of sustainable aviation fuels at ICAO level. The report shall also inform on technological advancements in the area of research and innovation in the aviation industry which are relevant to sustainable aviation fuels, including with regards to the reduction of non-CO₂emissions.

Or. en

Amendment 48

Proposal for a regulation Annex I – title

Text proposed by the Commission

Amendment

Annex I (*volume shares*)

Annex I (*energy shares*)

Or. en

Amendment 49

Proposal for a regulation Annex I – point a

Text proposed by the Commission

(a) From 1 January 2025, a minimum share of 2% of SAF;

Amendment

(a) From 1 January 2025, a minimum share of 2% of SAF, **consisting of:**

- **i) a maximum of 0.14 Mtoe of advanced biofuels,**
- **ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock**
- **iii) a minimum share of 0.05% of synthetic aviation fuels;**

Or. en

Justification

Compared to the Commission's proposal, a maximum of biofuels is fixed and synthetic fuels start to appear in very few quantity in 2025

Amendment 50

Proposal for a regulation Annex I – point b

Text proposed by the Commission

(b) From 1 January 2030, a minimum share of **5%** of SAF, **of which** a minimum share of **0.7%** of synthetic aviation fuels;

Amendment

(b) From 1 January 2030, a minimum share of **7%** of SAF, **consisting of:**

- **i) a maximum of 1.3 Mtoe of advanced biofuels**
- **ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock**
- **iii) a minimum share of 2.33% of synthetic aviation fuels;**

Or. en

Justification

Compared to the Commission's proposal, a max of biofuels is fixed and synthetic fuels are three times higher in the Rapporteur's suggestion.

Amendment 51

Proposal for a regulation Annex I – point c

Text proposed by the Commission

(c) From 1 January 2035, a minimum share of **20%** of SAF, **of which** a minimum share of **5%** of synthetic aviation fuels;

Amendment

(c) From 1 January 2035, a minimum share of **31%** of SAF, **consisting of:**

- i) a maximum of 4.5 Mtoe of advanced biofuels

- ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock

- iii) a minimum share of 16% of synthetic aviation fuels;

- iv) a minimum share of renewable electricity or renewable hydrogen of 3.5%

Or. en

Justification

Compared to the Commission's proposal, a max of biofuels is fixed; synthetic fuels are now reaching 16% of the total jet fuels; 2035 shows the first renewable electric and hydrogen planes.

Amendment 52

Proposal for a regulation Annex I – point d

Text proposed by the Commission

(d) From 1 January 2040, a minimum share of **32%** of SAF, **of which** a minimum share of **8%** of synthetic aviation fuels;

Amendment

(d) From 1 January 2040, a minimum share of **76%** of SAF, **consisting of:**

- *i) a maximum of 5.7 Mtoe of advanced biofuels;*
- *ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock;*
- *iii) a minimum share of 47.8% of synthetic aviation fuels;*
- *iv) a minimum share of renewable electricity or renewable hydrogen of 14%;*

Or. en

Justification

Compared to the Commission's proposal, a maximum of biofuels is fixed; synthetic fuels are now reaching their maximum, i.e. six times the Commission's forecast while renewable electric and hydrogen planes are now taking fully part of the jet fuels market.

Amendment 53

**Proposal for a regulation
Annex I – point e**

Text proposed by the Commission

(e) From 1 January 2045, a minimum **volume** share of **38%** of SAF, **of which** a minimum share of **11%** of synthetic aviation fuels.

Amendment

(e) From 1 January 2045, a minimum share of **93%** of SAF, **consisting of:**

- *i) a maximum of 5.8 Mtoe of advanced biofuels;*
- *ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock;*
- *iii) a minimum share of 47.8% of synthetic aviation fuels;*
- *iv) a minimum share of renewable electricity or renewable hydrogen of 31%;*

Or. en

Justification

Compared to the Commission's proposal, a maximum of biofuels is fixed; with 31% of the jet

fuel market, renewable electric and hydrogen planes, the Rapporteur's proposal shows that we can reach at least 93% of SAF by 2045 at the latest.

Amendment 54

Proposal for a regulation Annex I – point f

Text proposed by the Commission

(f) From 1 January 2050, a **minimum volume** share of **63%** of SAF, **of which** a minimum share of **28%** of synthetic aviation fuels

Amendment

(f) From 1 January 2050, a share of **100%** of SAF, **consisting of:**

- i) a maximum of 5.8 Mtoe of advanced biofuels;**
- ii) a maximum of 0.65 Mtoe of biofuels produced from RED Annex IX, part B feedstock;**
- iii) a minimum share of 47.8% of synthetic aviation fuels;**
- iv) a minimum share of renewable electricity or renewable hydrogen of 37.8%;**

Or. en

Justification

By 2050 at the latest, all jet fuels could be sustainable and fully renewable-based.

**ANNEX: LIST OF ENTITIES OR PERSONS
FROM WHOM THE RAPPORTEUR HAS RECEIVED INPUT**

The following list is drawn up on a purely voluntary basis under the exclusive responsibility of the rapporteur. The rapporteur has received input from the following entities or persons in the preparation of the report, until the adoption thereof in committee:

Entity in alphabetical order
ClonBio
easyjet
e-Pure
Ewaba
Safran
Shell
Transport & Environment