



Department
for Transport

Incentivising SAF

UK Policy Approaches

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UK OFFICIAL

Jet Zero Strategy

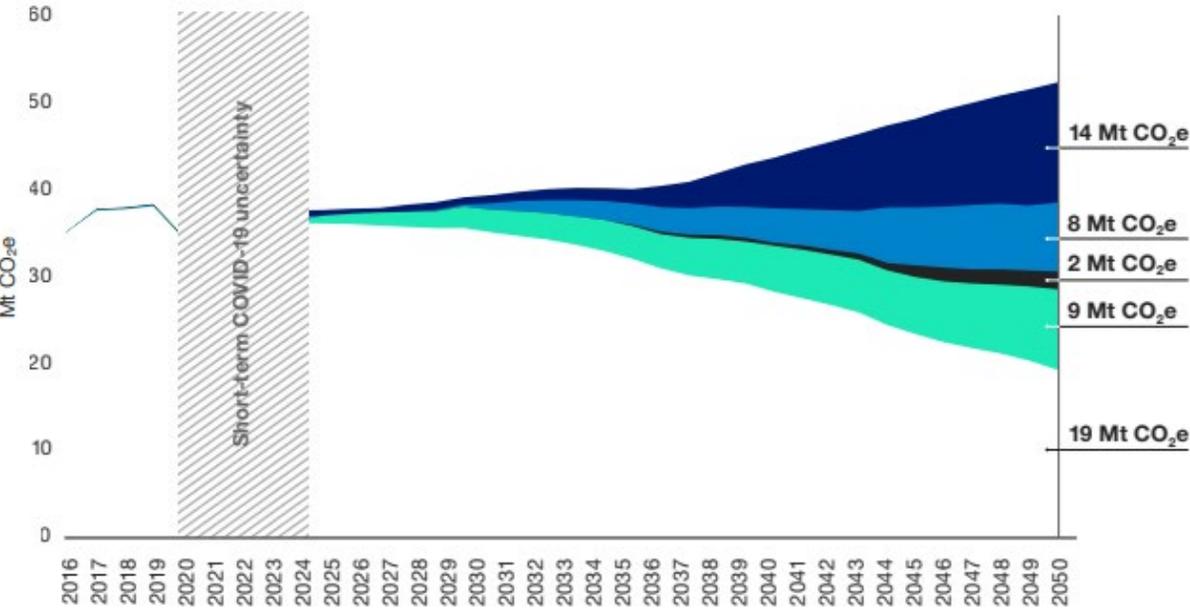


Jet Zero Strategy

The Jet Zero Strategy sets out the UK Government’s ambition and approach to achieving net zero by 2050 for UK aviation. The Strategy focuses on the rapid development of technologies in a way that maintains the benefits of air travel, whilst maximising the opportunities that decarbonisation brings for the UK.

- A commitment to achieve net zero aviation emissions by 2050.
- An emissions reduction trajectory from 2025 to 2050 that sees aviation emissions peak in 2019.
- 62 commitments and policies such as 2040 targets for net zero domestic flights, a 2040 zero emission airports target, and commitments to build a UK sustainable aviation fuels (SAF) industry.

Our High Ambition Scenario



● ETS and CORSIA ● Fuel efficiency improvements ● Zero Carbon Aircraft ● SAF ● Abatement outside aviation sector

The six key measures...



System efficiencies

Improving the efficiency of our existing aviation system: our aircraft, airports and airspace.

Our ambition is for all airport operations in England to be **zero emission by 2040**.

Huge aerospace opportunity, **with 29,200 new aircraft** to be built over the next 20 years, worth **\$2tn**.



Sustainable aviation fuels

We are providing over **£135m of funding** to support a UK SAF industry.

We will have a SAF mandate in place **with a target of at least 10% SAF in the UK fuel mix by 2030**.

We have committed to consulting on a **revenue certainty mechanism** for SAF by the end of April 2024.



Zero emission flight

We are supporting aerospace R&D through the ATI Programme, which will receive £975m between 2025-2030.

Our aspiration is to have **zero emission routes** connecting different parts of the United Kingdom by 2030.

Rapid investment in hydrogen aviation could see **60,000 jobs** working on zero-carbon aircraft by 2050.



Markets and removals

We work to maintain and strengthen the UK Emissions Trading Scheme (**ETS**) as a decarbonisation incentive for aviation.

We need to legislate for full implementation of the global Carbon Offsetting & Reduction Scheme for International Aviation (**CORSIA**) by 2024.

We support UK deployment of greenhouse gas removals (**GGRs**) - and access for the aviation sector, including through ETS and CORSIA.



Influencing consumers

We want to **preserve the ability for people to fly** whilst supporting consumers to make sustainable aviation travel choices.

We are working with the Civil Aviation Authority (CAA) to **provide consumers with environmental information** at the time of booking including reviewing responses from a Call for Evidence published earlier in 2023.



Addressing non-CO₂

There are other non-CO₂ impacts from aviation that affect the climate and local air quality.

We recently launched a multi-year, multi-million **Government research programme** to increase our understanding of non-CO₂ impacts and inform our approach to investment and policy-making.

Jet Zero Council

The Jet Zero Council (JZC) brings together government and chief executive officer-level stakeholders from industry and academia with the aim to deliver at least 10% sustainable aviation fuel (SAF) in the UK fuel mix by 2030 and zero emission transatlantic flight within a generation.

The objective of the JZC is to provide ministers and government advice on how to develop the UK's capabilities for achieving net zero aviation, to identify the benefits of developing these new industries in the UK, finding solutions to overcome barriers faced by the industry and finding opportunities to drive down production costs. Furthermore, the Council aims to support grass roots innovation and challenge existing approaches by involving disruptors and innovators.

Key areas of focus for the Council are:

Sustainable Aviation Fuels

Accelerate the establishment of UK production facilities for SAF and commercialising the industry by driving down production costs.

Zero Emission Flight

Accelerate the design, manufacturing, testing, certification, infrastructure and commercial operation for zero emission flight (ZEF).

Policy & Regulatory Framework

Develop a co-ordinated approach to the policy and regulatory framework needed to deliver net zero aviation by 2050.

Jet Zero Communications and Engagement Network

Share and effectively communicate the work of the JZC to wider Jet Zero stakeholders and the UK public.

Chairs

The Council is co-chaired by **Rt Hon Mark Harper MP, Transport Secretary, Rt Hon Kemi Badenoch MP, Business and Trade Secretary, and Rt Hon Claire Coutinho MP, Energy Security and Net Zero Secretary**

CEO

Emma Gilthorpe, COO of Heathrow Airport, is the JZC CEO responsible for driving forward the Council's agenda to ensure that it delivers its objectives.

Members

The Council's membership brings together ministers and senior leaders in aviation, aerospace and academia to drive the delivery of new technologies and innovative ways to cut aviation emissions.

Associate Members

Provides Delivery Group and Sub-group members, wider industry, academia, and NGOs with the latest updates on the work of the JZC.



UK SAF Policy

Our Aim

We are preparing the UK to be a global leader in the production, development, and use of SAF.

Overarching objectives

Create secure and growing demand for SAF

SAF Mandate



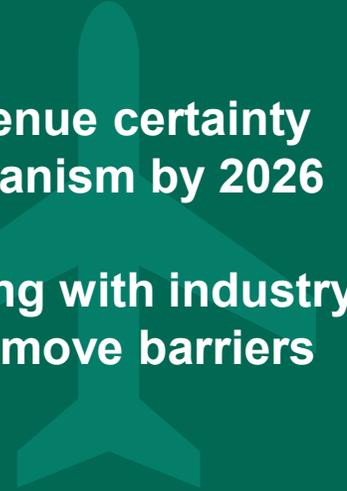
Kickstart a domestic SAF industry

£135m Advanced Fuels Fund
UK Clearing House
5 plants under construction by 2025

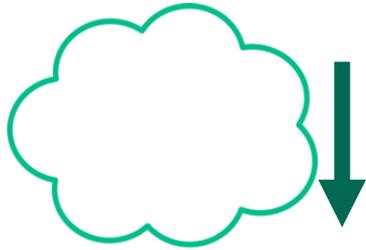


Secure investment

Revenue certainty mechanism by 2026
Working with industry to remove barriers



Why are we supporting SAF?



Reduce emissions and support the UK's legal net zero commitment. SAF to contribute 17% of the carbon abatement needed to reach net-zero aviation by 2050.



Support economic growth across regions. A SAF industry could generate up to £2.7bn GVA for the UK from UK production and global exports by 2035.



Support green jobs. 5200 jobs by 2035.



Increase domestic fuel resilience

Identifying the risks to SAF growth

To direct our policy interventions, we have **worked collaboratively with industry to identify the risks that may prevent investment in SAF and growth of a domestic SAF industry**. We also commissioned an independent report to identify the conditions required to build a domestic industry. The key risks highlighted were:



Policy certainty into the future



Supply and demand uncertainty



Revenue certainty



Technology / construction risks



Feedstock availability

SAF Mandate

Core programme objective: *Create secure and growing UK SAF demand*

The UK will introduce a SAF mandate from 2025, obligating at least 10% (c. 1.5bn litres) of jet fuel to be made from sustainable sources from 2030. This policy will:



Deliver meaningful carbon savings by only supporting the most sustainable SAF. The mandate will only support waste- and residue-derived biofuels, recycled carbon fuels and power-to-liquid fuels.



Provide policy certainty on the future of SAF.



Provide certainty on SAF supply and demand. The mandate will secure demand for SAF by obligating suppliers to purchase from producers. It will incentivise production and supply through the provision of tradable certificates with a cash value.



Help address perceived feedstock risks. Trajectories will consider cross-government agreed feedstock modelling. It will also diversify production routes through a HEFA cap and direct more support to non-biogenic feedstock pathways through a PtL obligation.

Advanced Fuels Fund (AFF)

Core programme objective: *Kickstart a domestic SAF industry*

The £135m Advanced Fuels Fund supports first-of-a-kind SAF production plants through the project pipeline to reach an investment ready stage. The AFF:



Addresses perceived technology and construction risks by taking first-of-a-kind SAF demonstration projects through the project pipeline, including through detailed feasibility studies, to the final construction phase.



Provides certainty on SAF supply by supporting our ambition to have 5 plants under construction in the UK by 2025. It will further support our mandate and carbon emission reduction targets, by securing supply in the UK.



Helps address perceived feedstock risks by supporting the advancement of a diverse range of technology routes to SAF, so we are not locked into one kind of feedstock.

UK Clearing House

Core programme objective: *Kickstart a domestic SAF industry*

The UK SAF Clearing House was launched in November 2023. It is a hub to support safety testing and approval of new aviation fuels through co-ordination, advice and funding.



Addresses perceived technology risks by expediting and reducing the cost of testing new SAF pathways, facilitating their quick access to the market.



Is a low-cost policy solution, which can help secure investment in SAF production facilities.



Is working with EU and US counterparts to **ensure global efficiencies in testing.**

Revenue Certainty Mechanism

Core programme objective: *Secure investment*

The UK has committed to delivering a revenue certainty mechanism to support the growth of a UK SAF industry and has set out how this could be achieved by 2026. The revenue certainty scheme will be industry funded. The scheme will:



Provide certainty on revenues from SAF products for a defined period, with the aim of driving investment in SAF production in the UK. There are different ways to design and deliver such a mechanism. This will be the subject of a forthcoming consultation.



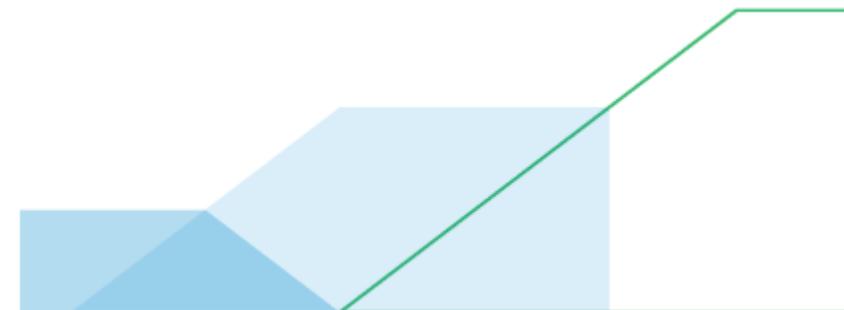
Provide policy certainty on the future of SAF.

International Collaboration

International Objectives

The UK wants to see a thriving global market for SAF, where all states can participate in the development, production and use of SAF. Through our international engagement we seek to:

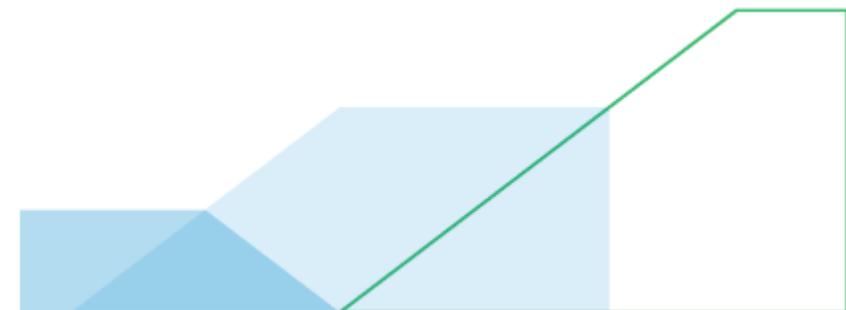
- Build the global market for SAF, through incentivising and facilitating growth in both supply and demand at a rate that is ambitious yet maintainable. Increased uptake of SAF in global aviation will ensure a feasible trajectory towards net zero by 2050, as well as improving global energy security and opening new economic opportunities.
- Continue to ensure that robust and comprehensive sustainability criteria are applied globally.



Key Agreements



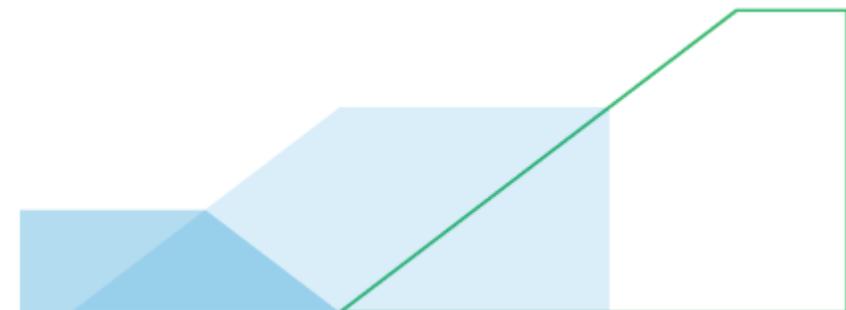
- ICAO 41st Assembly in October 2022, the global community adopted a new global 'long-term aspirational goal' (LTAG), to reach net zero CO₂ emissions from international aviation by 2050.
- The third Conference on Aviation Alternative Fuels took place on 20-24 November 2023. Agreement was reached for a quantified global target of 5% reduction in carbon intensity from aviation fuels by 2030, through the use of cleaner fuels.



CORSIA



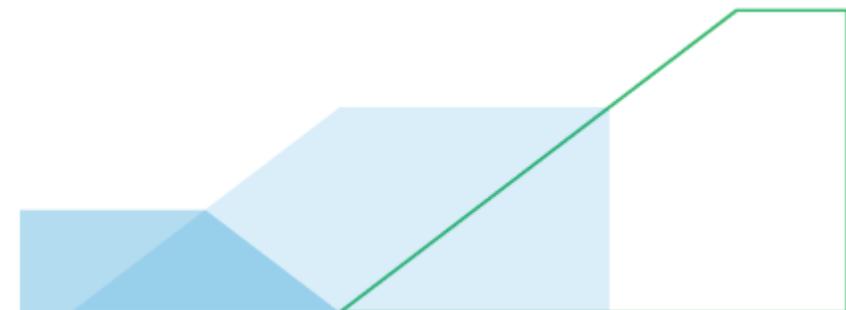
- The Carbon Offsetting and Reduction Scheme for International Aviation requires airlines to offset their emissions to keep them at 85% of 2019 emissions.
- From 2021 until 2026 only flights between States that volunteer to participate in CORSIA are subject to offsetting requirements (80% of aviation). From 2027, it will apply to all States (with some exceptions).
- Airlines can use SAF and LCAF to meet their CORSIA obligations.
- CORSIA has set out eligibility and sustainability criteria to avoid unintended consequences. The scheme also has provision to avoid the double counting of emissions.



ACT - SAF

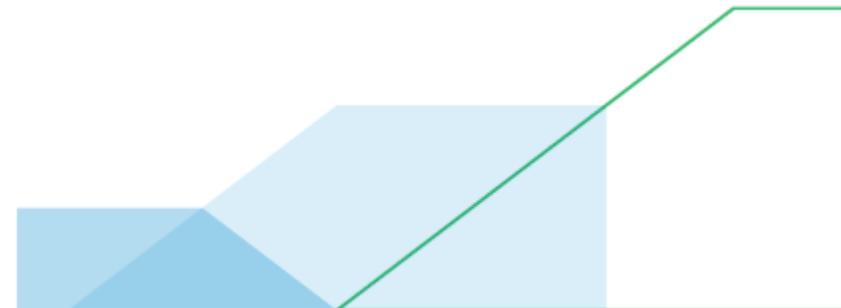


- The ACT-SAF programme was launched on 1st June 2022. It provides capacity building to developing states to support their SAF development and deployment.
- In September 2023 the UK agreed to provide direct capacity building to three states before the end of March 2024. We have provided training to Tanzania, Equatorial Guinea, Angola and will soon provide support to Cameroon and DRC.
- The UK has made a voluntary contribution of \$750,000 Canadian dollars (ca. £450,000) to the ICAO Environment Fund to enable at least three feasibility studies on sustainable aviation fuels for states at the beginning of their SAF 'journey'. We have confirmed feasibility studies will be provided to Zimbabwe and Ghana.

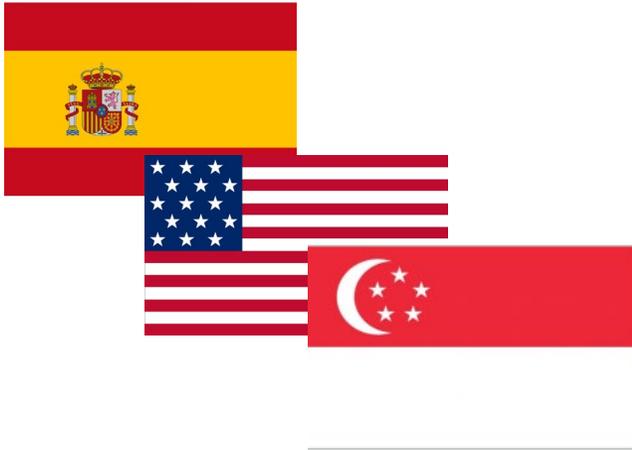


International financing

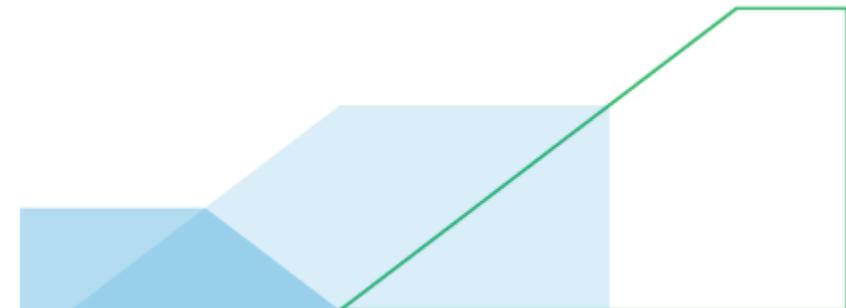
- Developing states need support to access financing for their aviation decarbonisation projects, including SAF plants. Without such support, states will face difficult in delivering on the long-term aspirational goal.
- ICAO has proposed the creating of the 'Finvest Hub' which will support developing states to access public and private investment capacities and funding from financial institutions, for the aviation decarbonisation projects.
- The proposal is still only at the scoping stage. The UK is actively supporting the development of the hub and hopes to make progress before the 41st ICAO Assembly in 2025.



Bilateral Engagement



- The UK engages globally to share knowledge on SAF policy, to support the development of respective domestic industries.
- The UK has signed memoranda of understanding (MOUs) with Spain and Singapore, has made public agreements with the US and engages extensively with partners to support our ambitions. Our engagement focusses on:
 - Promoting the development and adoption of SAF.
 - Knowledge sharing and academic/industry partnerships.
 - Promoting the highest sustainability criteria.
- The UK is exploring further opportunities for engagement with other key states.

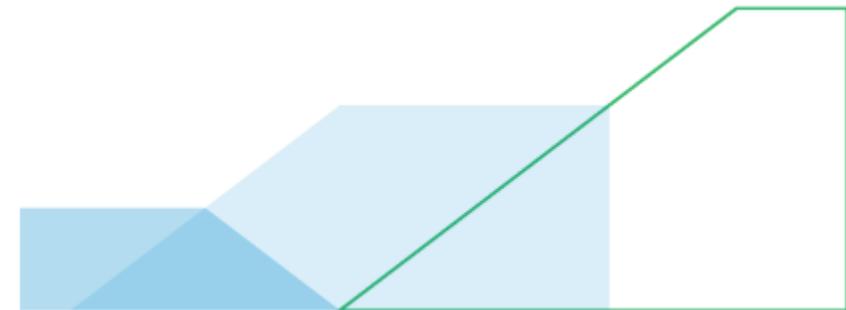


Ask to international community

Asks

To build on our ambition to see a thriving global market for SAF, the international community can support us in our engagement and activities to:

- Encourage states to introduce appropriate regulatory frameworks to support the development of SAF industries globally, ensuring stringent sustainability criteria are used.
- Facilitate and promote investment into the SAF sector globally.
- Ensure robust accounting systems, to avoid double counting of emission savings from SAF, particularly between nationally determined contributions (NDCs) and international aviation. This will ensure an effective global trading environment, where states can have confidence in the sustainability of fuels.



Thank you

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