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News story

Lift off for projects fuelling jet liners with bin liners

The government has awarded funding to companies turning waste into jet fuel.

From:

[Department for Transport \(/government/organisations/department-for-transport\)](#)
and [The Rt Hon Mark Harper MP \(/government/people/mark-harper\)](#)

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- 5 new projects receive share of £165 million to make UK a global leader in sustainable aviation fuels
- new production facilities will create thousands of green jobs, level up the UK and slash carbon emissions by an average of 200,000 tonnes each year once fully up and running
- follows publication of the government's Jet Zero strategy earlier this year, ensuring the UK remains at the centre of green innovation

The UK took another step towards net zero carbon emissions and helping its sustainable aviation fuel (SAF) industry to take flight as government awarded 5 projects a share of the £165 million Advanced Fuels Fund.

The [successful projects \(https://www.gov.uk/government/publications/advanced-fuels-fund-competition-winners\)](https://www.gov.uk/government/publications/advanced-fuels-fund-competition-winners) include SAF plants in Teesside, Immingham and Ellesmere Port which will convert everyday household and commercial waste, such as black bin bags, into sustainable jet fuel.

Other successful projects include a SAF plant in Port Talbot which will convert steel mill off-gases into sustainable jet fuel and the early development of a SAF plant using carbon capture and hydrogen made from renewable electricity.

Building on the success of the green fuels, green skies programme, the 5 projects alone will produce over 300,000 tonnes of SAF a year – enough to fly to the moon and back an estimated 60 times.

The successful projects will also slash CO2 emissions by an average of 200,000 tonnes each year once fully up and running – the equivalent of taking 100,000 cars off the road.

Transport Secretary Mark Harper said:

“ Using waste or by-products to refuel airliners sounds like a flight of fancy, but thanks to £165 million of government funding it's going to help us make guilt-free flying a reality.

“ It's exactly this kind of innovation that will help us create thousands of green jobs across the country and slash our carbon emissions.”

The winners of the Advanced Fuel Fund are based across the UK – from the north of England to south Wales, and will create thousands of skilled, green jobs.

Launched alongside the [Jet Zero strategy \(https://www.gov.uk/government/publications/jet-zero-strategy-delivering-net-zero-aviation-by-2050\)](https://www.gov.uk/government/publications/jet-zero-strategy-delivering-net-zero-aviation-by-2050) in July 2022, the Advanced Fuel Fund is designed to support our vision to be a world leader in sustainable aviation fuel by accelerating the development of SAF production plants in the UK, helping the government to achieve its aim of having at least 5 commercial SAF plants under construction in the UK by 2025.

Tim Alderslade, Chief Executive of Airlines UK, said:

“ The jet zero strategy was a real statement of intent from government that aviation, without the carbon, is an achievable end goal by 2050. This £165 million of funding – alongside the 10% SAF mandate by 2030 shows the government shares our ambition of a home-grown SAF industry here in the UK. This could generate tens of thousands of jobs and huge GVA, levelling-up and exports potential for the UK. It’s a big prize and one we are committed to working with ministers to achieve.”

Jennifer Holmgren, Chief Executive officer, LanzaTech, said:

“ The Advanced Fuels Fund competition from the Department for Transport shows real leadership in validating new technologies that can have an impact globally and we’re excited that Project DRAGON has been recognized for its potential to deliver results and create new jobs while producing the volumes of SAF greatly needed by a sector that has limited options today. We must accelerate deployment of SAF plants in the UK and by working together, we can show the world what is possible, and I thank the UK Department for Transport for its continued support.”

Mishal Almutlaq, Chief Investment Officer, alfanar Global Development, said:

“ alfanar is proud to be part of the UK’s journey to cement itself as a leader in clean aviation, creating quality jobs in its industrial areas as well as developing know-how in this sustainable and innovative industry. Our Lighthouse Green Fuels Waste to SAF project in Teesside is in advanced stages of development with FEED progressing well since July 2022. The Advanced Fuels Fund will positively contribute to the development costs helping enable the project to reach final investment decision and enter construction in 2024. We appreciate the Department for Transport’s continued support and would like to thank them for awarding our project grant funding.”

Henrik Wareborn, Chief Executive Officer, Velocys, said:

“ Velocys is delighted to receive 2 grant awards from the Advanced Fuels Fund, which will help to accelerate the production of SAF at commercial scale in the UK using our technology. The Altolto grant will allow us to begin FEED for our waste-to-SAF plant in Immingham, which already has planning permission. The e-fuels grant allows us to work with our partners to explore the UK based production of power-to-liquid SAF.”

Jeff Ovens, Managing Director, Fulcrum BioEnergy said:

“ Fulcrum is very excited and grateful to have been awarded funding from the UK DfT’s Advanced Fuels Fund, to help develop our ‘Fulcrum NorthPoint’ residual waste to SAF plant, at Stanlow, UK. This funding will help Fulcrum build on the technical knowledge and experience the company has gained from well over a decade of project development and the early operations of its US based, ‘Sierra BioFuels’ plant - the world’s first waste to sustainable

hydrocarbon fuels facility. Alongside the operational experience gained from Sierra, this DfT funding will further help de-risk the NorthPoint project and target ‘investor ready’ status, in preparation for construction start in 2025 and operations in 2027.”

Today’s announcement comes less than a week after the government [announced that Virgin Atlantic has won the race to make the first net zero transatlantic flight next year – powered by SAF](https://www.gov.uk/government/news/worlds-first-net-zero-transatlantic-flight-to-fly-from-london-in-2023) (<https://www.gov.uk/government/news/worlds-first-net-zero-transatlantic-flight-to-fly-from-london-in-2023>).

In 2023, one of Virgin Atlantic’s flagship Boeing 787s, powered by Rolls-Royce Trent 1000 engines, will take off from London Heathrow and make the journey to New York’s John F Kennedy Airport – a journey made by thousands of people for business, family, and leisure every week.

Made from waste materials or by-products such as household waste, industrial gases or used cooking oil, sustainable aviation fuels can achieve greenhouse gas emissions savings of more than 70% compared to conventional fossil jet fuel.

Alongside the news, the government is also announcing a further £1.2 million for the Zero Emission Flight Infrastructure (ZEFI) project to help develop key airport infrastructure, such as hydrogen re-fuelling technology, for zero emissions aircraft. Launched in 2021 with £3 million, this additional £1.2 million extends the project for another year to support airports prepare to handle new forms of aircraft.

Meanwhile, the UK is also partnering with Kenya to help at least 5 East African countries implement the UN’s global carbon offsetting scheme for aviation, CORSIA. Under the scheme, airlines must purchase offsets to compensate for this growth, such as funding carbon-reducing technologies and initiatives in other sectors. This includes activities such as switching to renewable energy sources, capturing waste gases and avoiding deforestation.

The UK has now also formally joined the International Civil Aviation Organization (ICAO) assistance, capacity building and training programme for sustainable aviation fuels (ACT-SAF). On 14 December, the UK signed the terms and conditions for participating in the programme and will now focus on how it can offer support to other countries to help them develop their own SAF industries.

This follows the landmark ICAO Assembly in October, where with the help of UK leadership a new net zero 2050 goal was adopted for the global aviation sector, putting it in line with the 1.5-degree temperature target set by the Paris Agreement.

Aviation, Europe and technology media enquiries

Media enquiries 020 7944 3021

Out of hours media enquiries 020 7944 4292

Switchboard 0300 330 3000