

Lighthouse Green Fuels

The Jet Fuel for Net Zero

Statutory Consultation Newsletter

May 2024



Lighthouse Green Fuels will make sustainable aviation fuel from waste and/or waste biomass at our Billingham site in Stockton-on-Tees.

Welcome to the statutory consultation launch newsletter for the Lighthouse Green Fuels Project which is being developed by Alfanar. The consultation will run from **Thursday 16 May to Thursday 20 June 2024**.

We will be holding a series of public information events throughout this consultation, providing you with an opportunity to view our plans in detail, speak with members of our project team and give your feedback on our proposals.

This newsletter provides an introduction to the Project, a summary of our proposals, details of upcoming consultation events and information on how you can get involved.

At our site in Billingham, Stockton-on-Tees, Lighthouse Green Fuels will convert waste and/or waste biomass into sustainable aviation fuel (SAF). This SAF will be blended with conventional aviation fuel to power flights around the world, saving approximately 350,000 tonnes of carbon dioxide emissions per year, compared with conventional aviation fuel on its own.

With future plans to connect Lighthouse Green Fuels into local carbon capture and storage infrastructure, this could increase to 750,000 tonnes of carbon dioxide emissions saved per year.

The Project will be the largest of its kind in Europe and convert over 1 million tonnes of waste and/or waste biomass into over 175 million litres of advanced SAF and approximately 30 million litres of green naphtha each year.

This is the equivalent to the fuel required for over 25,000 short-haul flights to Europe, or over 2,500 long-haul flights to destinations such as the Americas or Australia, per year.

"Lighthouse Green Fuels will help to address the challenge of Net Zero by delivering an immediate and long-term solution to decarbonising the UK aviation industry. Your feedback is important to us and we would encourage anyone interested in Lighthouse Green Fuels to learn more about our plans, attend one of our public events and share your views."

– **Noaman Al Adhami, UK Country Head of Alfanar**

Who are we

Lighthouse Green Fuels Ltd is owned by Alfanar, a global project development, manufacturing and engineering company. Alfanar has a presence in 24 countries across the Middle East, Asia, Africa and Europe.

With a global renewable power development portfolio of 1.75 GW, Alfanar's Global Development division has significantly contributed to the decarbonisation of the power sector. Now the division is focused on decarbonising the transportation sector. This includes the 'hard-to-decarbonise' sectors such as aviation, marine and heavy goods vehicles. It currently has renewable fuels projects, including SAF projects, under development across the world.

In 2018, Alfanar acquired rights and infrastructure for the Project Site, which is located in Billingham, Stockton-on-Tees. Alfanar is investing over £1 billion to advance the UK's domestic SAF production through the development of Lighthouse Green Fuels.

What is Sustainable Aviation Fuel

Lighthouse Green Fuels will produce SAF, which has the potential to reduce greenhouse gas emissions by up to 80% compared with conventional aviation fuel. The SAF we plan to produce uses waste and/or waste biomass as the feedstock. The waste would be non-recyclable waste that would otherwise go to landfill. The waste biomass could come from non-hazardous waste wood or forestry residues.

Several decarbonisation routes have been proposed for the aviation industry, but SAF is currently the only option that presents a viable, immediate and long-term solution.

This is for three main reasons:

- SAF offers significant greenhouse gas savings compared with conventional aviation fuel
- SAF can use the existing distribution, storage and refuelling infrastructure traditionally used by fossil fuels
- SAF is a safe alternative and already used to fuel flights today

Our vision for Lighthouse Green Fuels

Our vision for Lighthouse Green Fuels is to develop a flagship project for the UK, helping to deliver the sustainable future of the UK's aviation industry while setting the standard for production outputs, carbon dioxide savings and job creation.

The objectives for Lighthouse Green Fuels are to:

-  Contribute to the UK and Teesside's Net Zero ambitions
-  Provide national energy security
-  Lead the way in UK SAF production to achieve Jet Zero
-  Increase biodiversity and enhance existing ecology to achieve biodiversity net gain
-  Support the local economy
-  Develop the Project in a responsible and considerate way

The Project in numbers



Over 1 million tonnes of waste and/or waste biomass processed per year



Over 175 million litres of SAF and **30 million litres** of green naphtha produced per year



25,000 short-haul or **2,500 long-haul flights** fuelled per year from the UK



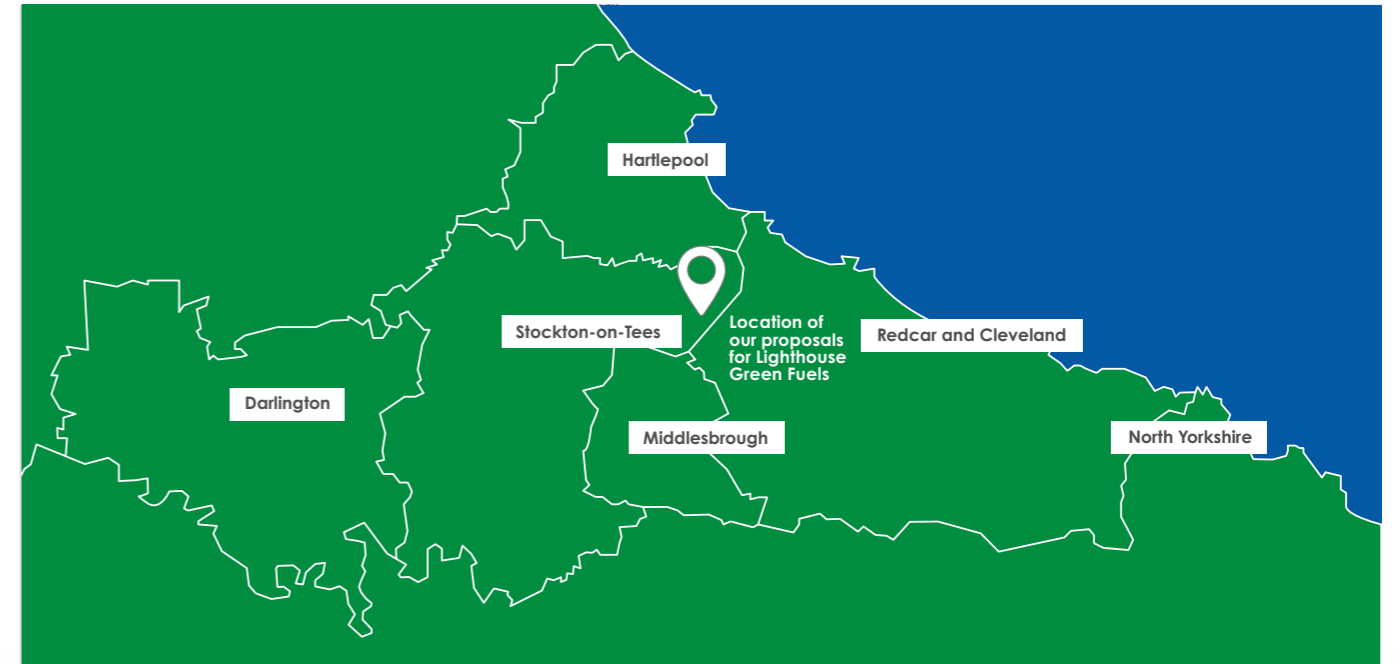
Up to 350,000 tonnes of carbon dioxide emissions avoided per year compared with conventional aviation fuel. Up to **750,000 tonnes** with access to carbon capture and storage infrastructure



Up to 2,600 jobs created during the construction phase



840 full-time jobs created in the UK once operational, including **240 full-time jobs** on the Project Site



More information on our Project location and indicative Site Plan can be found in the consultation information booklet, located on the Project website www.lighthousegreenfuels.co.uk

Why Teesside?

Teesside has a strong industrial heritage and a highly skilled workforce. Alongside tackling aviation emissions and decarbonising the UK economy, Lighthouse Green Fuels will create opportunities for the local community by using its skilled workforce and local suppliers. This will attract further investment into the Teesside and North East regions.

Recent world events have highlighted the importance of domestic energy security in an increasingly uncertain global economy. An important aspect of this will be the provision of domestically-produced fuel for the UK aviation industry. Lighthouse Green Fuels will have the largest SAF production capacity among all advanced SAF facilities in Europe, which signifies the Project's vital role in ensuring the future of the UK's energy security.

The UK and energy security

The UK is ideally placed as a key global aviation hub. It operates almost 8.4% of global aviation capacity, despite representing just 0.8% of the global population¹.

What is Jet Zero?

Reducing our carbon emissions will be a collective effort by individuals, businesses and governments across the world. The UK government has committed to decarbonising the UK aviation industry by 2050 when it is intended that the UK will be a carbon-neutral country. As part of this commitment, the government announced a strategy for the aviation industry in 2022, known as the Jet Zero Strategy².

The Jet Zero Strategy states that SAFs are key in accelerating the transition to Jet Zero and represent an industrial leadership opportunity for the UK.

Within the Strategy, the government has also committed to at least five SAF production plants being under construction by 2025 and for SAF to represent 10% of the UK aviation fuel mix by 2030.

Lighthouse Green Fuels represents one of the five identified SAF plants and was awarded funding,

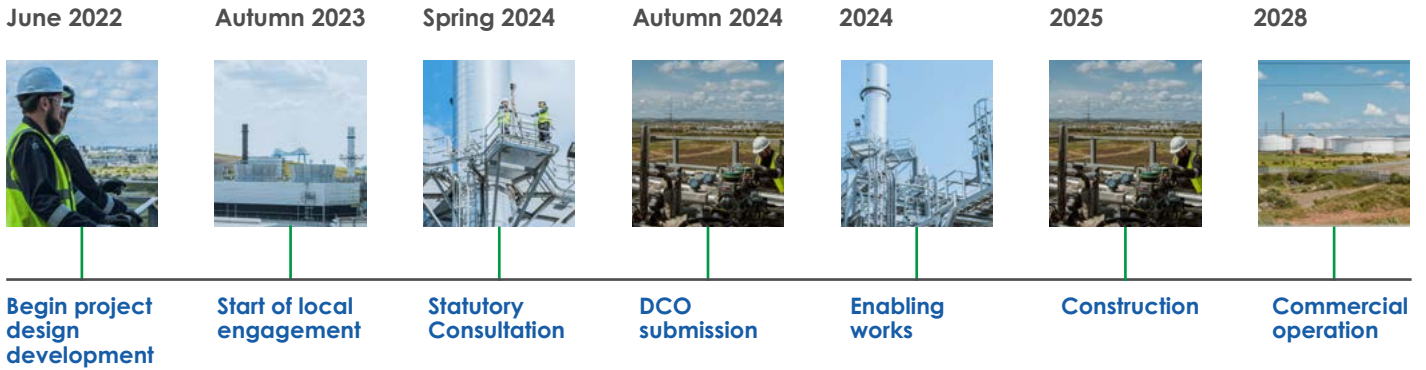
totalling over £22 million, from the Department for Transport's Green Fuels, Green Skies (GFGS) and Advanced Fuels Fund (AFF) competitions.

The challenge is to meet Net Zero with four times as many aviation passengers. The solution is SAF, the Jet Fuel for Net Zero.

¹ <https://www.sustainableaviation.co.uk/wp-content/uploads/2023/04/Sustainable-Aviation-SAF-Roadmap-Final.pdf>

² <https://assets.publishing.service.gov.uk/media/62e931d48fa8f5033896888a/jet-zero-strategy.pdf>

Our indicative timeline



Consultation and next steps

The consultation is taking place between Thursday 16 May and Thursday 20 June 2024, **please provide any feedback by 11:59pm on Thursday 20 June 2024**. Your feedback will help us to shape our proposals before we submit our application for development consent to the Planning Inspectorate later this year.

Anyone who is interested in this Project is welcome to take part in the consultation. We welcome all views and will take them into account before we submit our application for development consent.

We are holding a series of face-to-face consultation events at suitable, publicly accessible locations.

Billingham Forum

Town Centre, The Causeway, Stockton-on-Tees, Billingham TS23 2LJ
1 June 2024 12pm to 5pm

High Clarence Primary School

Port Clarence Road, Middlesbrough TS2 1SY
5 June 2024 3pm to 8pm

Billingham Rugby Club

Greenwood Rd, Billingham, Stockton-on-Tees TS23 4BA
6 June 2024 10am to 5pm

We will hold a series of webinars throughout the consultation period. You can register for these online events by emailing info@lgf.co.uk

28 May 2024 - 6:30pm to 8pm

4 June 2024 - 10am to 11:30am

12 June 2024 - 10am to 11:30am

During the consultation period, copies of the consultation materials will be available to view at the local information point close to the Project Site:

Billingham Library

Kingsway, Billingham TS23 2LN
(opening hours Mon-Tue 8:30am-7pm, Wed-Fri 8:30am-5pm, Sat 9:30am-4pm, Sun closed).

Where to find out more

To find out more about the Project please visit our website: www.lighthousegreenfuels.co.uk.



Please scan the QR code to be directed to the Project website.

Contact us

Please do not hesitate to get in touch if you have any questions about the Project. You can get in contact with members of our community relations team using the details below:



Email us at info@lgf.co.uk



Call us on **0800 157 7346**



Write to us at **FREEPOST LIGHTHOUSE GREEN FUELS** (no stamp required)

Should you require any documents in an alternative format such as large print, braille, audio, or alternative languages, please contact us using the details provided. All graphs and maps included in this document are for illustrative purposes only.