

# Our Proposals

Welcome to our consultation for Lighthouse Green Fuels, which plans to make sustainable aviation fuel (SAF) from sustainably-sourced biomass. Developed by the Alfanar Group, the project is proposed for a site in the industrial area of Seal Sands, in the borough of Stockton-on-Tees, with some utility corridors extending into the neighbouring borough of Redcar and Cleveland.

This proposal is a revised iteration of an earlier project, also called Lighthouse Green Fuels, which was consulted on in 2024. The previous application has been formally withdrawn and is no longer being progressed. The new proposal reflects technical advancements and strategic improvements and is considered a new scheme under planning legislation.

## The two key changes are:


- **Location:** The proposed SAF facility will now be located at Seal Sands, approximately 500 metres north-east of the previous site. This new location has been chosen due to its suitability, size and proximity to necessary infrastructure to support SAF production. This larger, consolidated site will be able to accommodate the full SAF process in one location.
- **Feedstock:** The new proposal will use sustainably-sourced biomass as its primary feedstock, replacing the previous plan to use municipal solid waste-derived feedstock (household waste). This change supports greater carbon savings and aligns with sustainability criteria set by the UK Government.


## About us


Lighthouse Green Fuels is being developed by LGF Projects Ltd. This is wholly owned by the Alfanar Group, a global project development, manufacturing and engineering group headquartered in Saudi Arabia.

Lighthouse Green Fuels has developed significant in-house feedstock-to-SAF expertise. This experience will be utilised to construct and operate Lighthouse Green Fuels.

## The consultation

 **Email us your feedback**  
You can send written comments to us via email at [info@lgf.co.uk](mailto:info@lgf.co.uk)

 **Complete a paper form**  
Please ensure you submit your response by **11:59pm on Tuesday 13th January 2026**

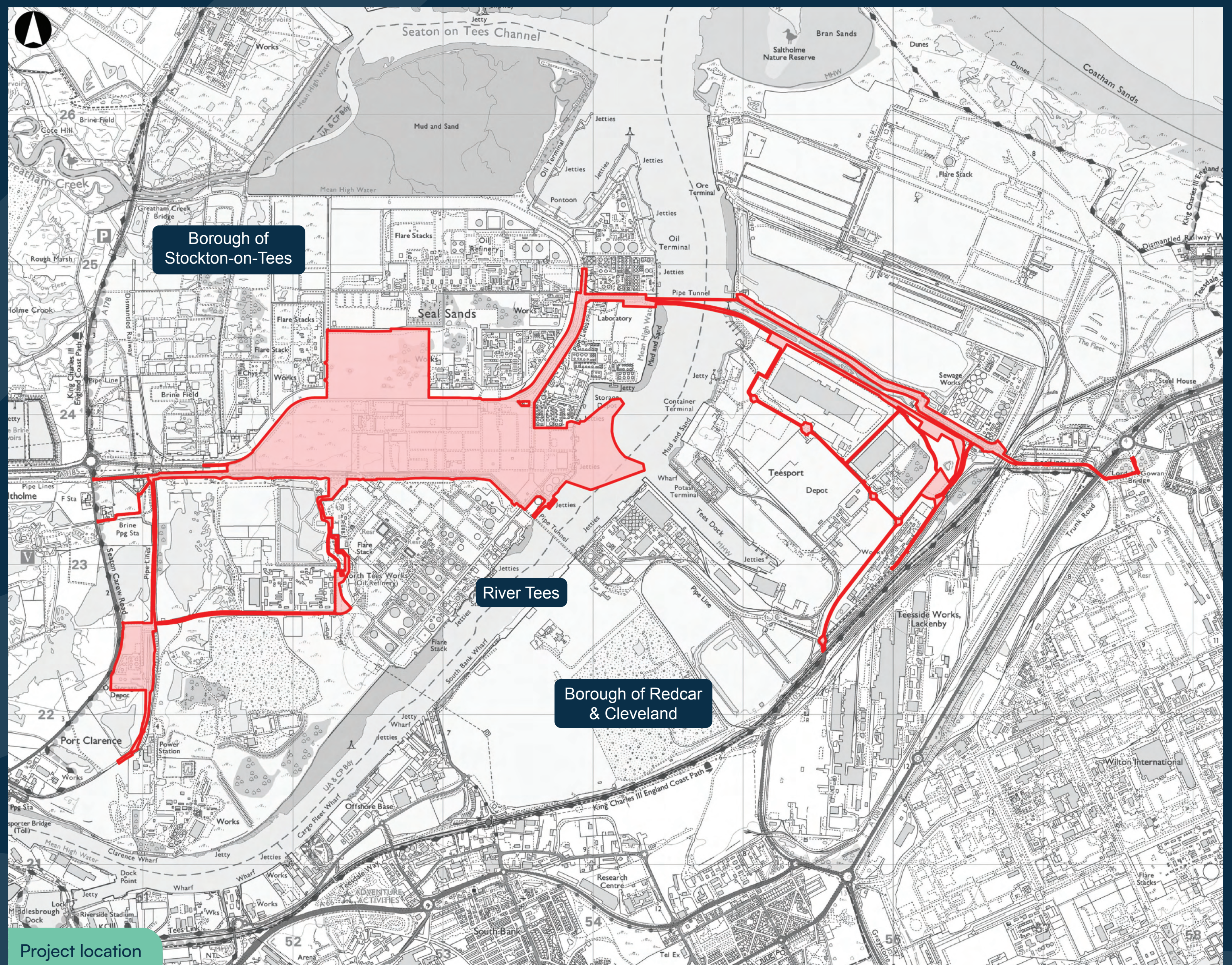
 **Visit our website**  
Complete a feedback form on our website by scanning the QR code



## Why this site?

This new site has been carefully chosen due to its suitability, size, and proximity to the necessary infrastructure required to support SAF production:

- Located within an existing industrial area
- Predominantly a brownfield site
- This larger, consolidated site accommodates the full SAF process in one location
- Proximity to water and industrial gas supplies
- Proximity to local carbon capture and storage infrastructure, supporting the project's ambition for low or carbon-negative SAF in the future
- Access to nearby road, marine and rail terminals for export of SAF
- Direct access to the River Tees for delivery of feedstock





# Our Vision for Lighthouse Green Fuels



More than  
**£2 billion**  
investment in the UK

Up to  
**3,400**  
full time equivalent jobs supported UK wide during operations, including more than 600 will be local to Teesside

Up to  
**750,000 tonnes**  
of carbon dioxide emissions could be avoided when the plant is coupled with carbon capture and storage infrastructure in the future, with the possibility of carbon-negative SAF

More than  
**180 million litres**  
of advanced SAF and approximately **30 million litres** of renewable naphtha produced each year

Up to  
**350,000 tonnes**  
of carbon dioxide emissions avoided each year. This is equivalent to 4,500 conventionally-fuelled transatlantic flights from London to New York offset per year

## What is SAF?

SAFs are renewable or waste-derived aviation fuels that meet strict sustainability criteria. They are safe, proven fuels with the potential to reduce carbon emissions from aviation — in the case of LGF, by up to 80% compared with conventional aviation fuel.

The primary feedstock for Lighthouse Green Fuels is sustainably-sourced biomass. This will include:

- Forest residues (such as treetops, branches and thinnings)
- Sawmill residues (such as bark, offcuts and sawdust)
- Agricultural residues (such as sugarcane bagasse and sunflower husks)

The project will also include a Combined Heat and Power (CHP) plant, a facility that simultaneously generates electricity and useful heat from the same energy source, significantly improving overall efficiency and reducing carbon emissions. The CHP plant will also use biomass, together with waste wood.

## Why SAF?

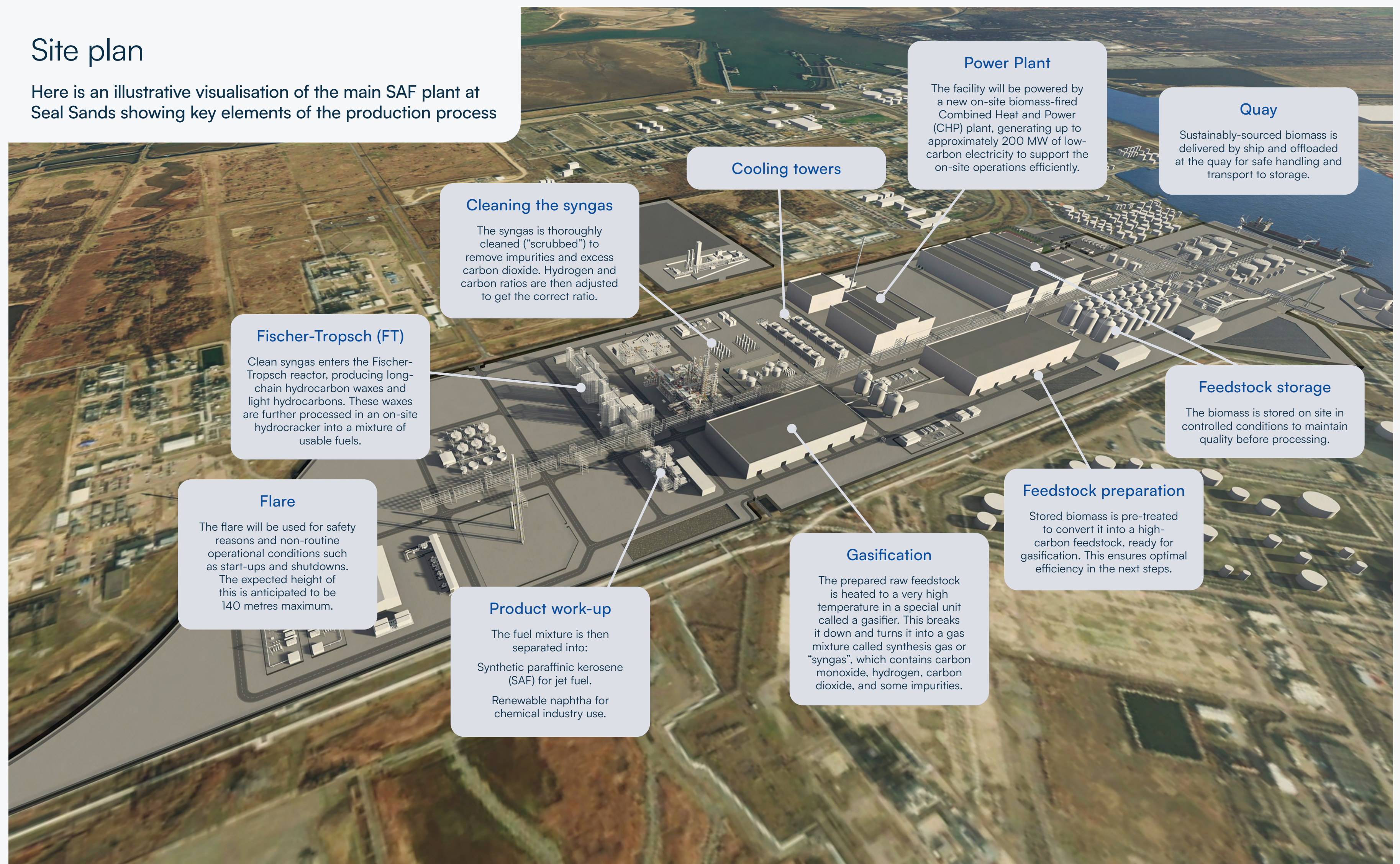
SAF is already in use today, but more will be needed to meet the UK Government's targets for net zero domestic flights by 2040, and for all flights to achieve net zero by 2050.

The Government's SAF Mandate requires at least 10% of the UK aviation fuel mix comes from sustainable sources by 2030. To meet the scale of demand, more SAF production facilities are required.

Lighthouse Green Fuels is the most advanced SAF project of its kind in the UK. It is projected to deliver 11% of the SAF Mandate's requirement in 2030.

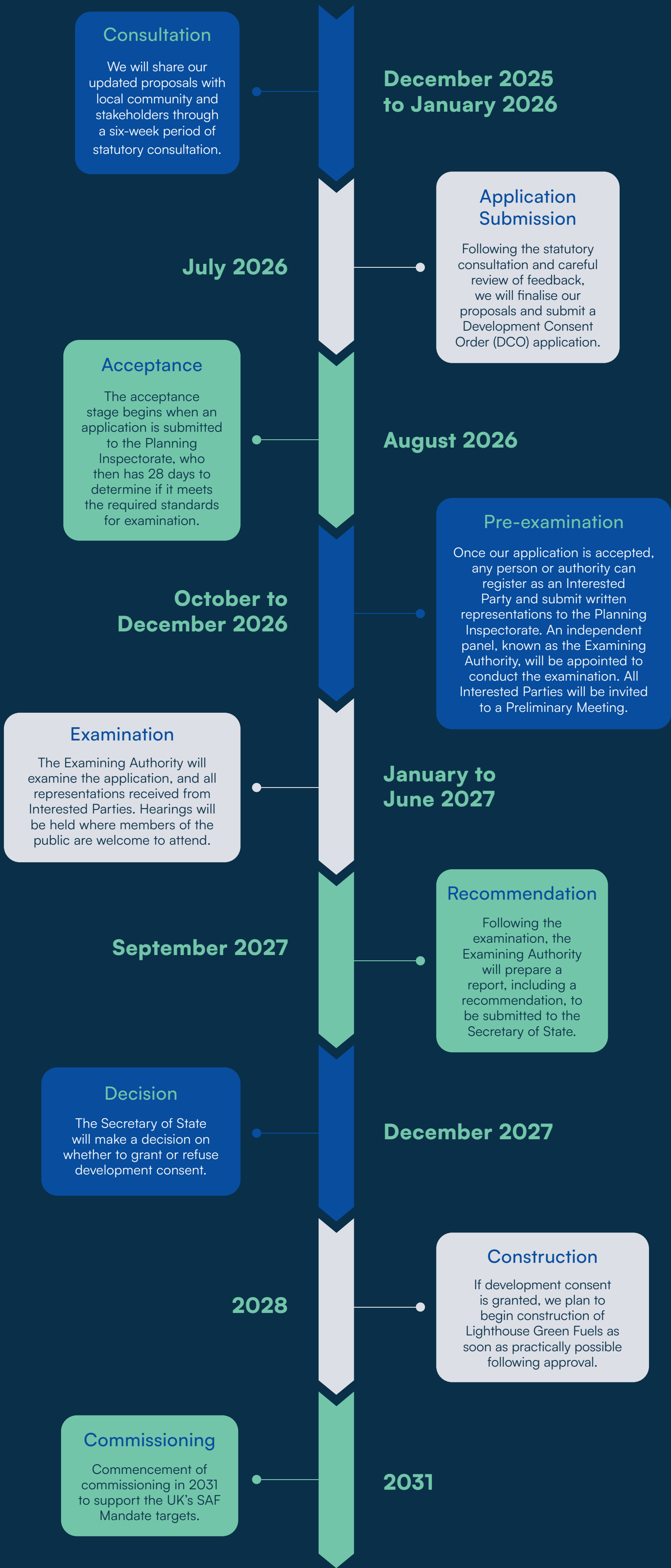
## Site plan

Here is an illustrative visualisation of the main SAF plant at Seal Sands showing key elements of the production process





# Indicative project timeline



# Environmental information

As part of our application, we are required to undertake an Environmental Impact Assessment (EIA) to identify the potential effects that Lighthouse Green Fuels could have on the environment, people and local communities. As part of this consultation, we have published a Preliminary Environmental Information Report (PEIR) to outline our assessments of the potential impacts carried out to date. Key topics include:



**Biodiversity:** The site includes an area of nationally and locally important marine and terrestrial habitats. The project interacts with these designations in a limited way, specifically for quay improvements and essential dredging works. We are committed to protecting these habitats and the species that live there. Wherever possible, we will avoid disturbing important habitats or removing vegetation. We are also exploring options for project biodiversity net gain (BNG) requirements.



**Traffic and site access:** A full Transport Assessment is being to plan optimal routes for construction vehicles, equipment deliveries and site access that minimise disruption and ensure safety. Main access to North Tees will be via Seal Sands Road, connecting to the A1185 and A689/A19, while South Tees access will use the Wilton International North Gate via A1085 or A1053.



**Marine:** The project includes significant marine infrastructure upgrades, such as removing old jetties, constructing a new quay and dredging to allow safe ship access for feedstock deliveries. These works require a marine licence regulated by the Marine Management Organisation (MMO). We will conduct detailed assessments cover dredging, sediment disturbance and impacts on marine life.



**Landscape and visual impact:** The tallest structures at the Lighthouse Green Fuels site could reach up to 140 metres, with the flare being the highest. Other stacks, such as the biomass CHP, are expected to be 80—120 metres. Visual impacts will be assessed from key viewpoints such as Billingham, Port Clarence, RSPB Saltholme, and the wider River Tees landscape. The design process will explore ways to reduce visual impact.



**Air quality:** The production plant will create operational emissions, which will be controlled and monitored in line with an Environmental Permit issued by the Environment Agency. Emissions from the process will be assessed, carefully controlled and minimised. A flare will also be installed on site, but this will only be used in case of emergencies.



**Noise:** The site is more than 2.8 kilometres from the nearest homes, so significant noise impacts are unlikely. This this will be confirmed through our assessments of noise from both construction and operation of the site.



**Flood risk:** The majority of the site is in Flood Zone 1 (low risk), but some corridors are in higher risk zones. A Flood Risk Assessment will be undertaken, with drainage designed to manage surface water and prevent increased flood risk.

## Find out more

In addition to the PEIR, we have published a range of documents to help you learn about our proposals and respond to our consultation, including:

- Consultation brochure
- Community newsletter
- Feedback form
- Maps and plans

These are available digitally on our project website [www.lighthousegreenfuels.co.uk/consultation](http://www.lighthousegreenfuels.co.uk/consultation) and in print at our consultation events, from our information point at Billingham Library, and on request.

## Contact us

- @ [info@lgf.co.uk](mailto:info@lgf.co.uk)
- 0800 157 7346
- ✉ Freepost LIGHTHOUSE GREEN FUELS (no stamp required)