

# Lighthouse Green Fuels

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Statutory consultation webinar

16 May - 20 June 2024



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# Lighthouse Green Fuels

## Agenda

1. Housekeeping
2. Introduction
3. Project background
4. Our proposals
5. Environmental Impact Assessment (EIA)
6. Consultation and next steps
7. Q&A





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# 1. Housekeeping



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# 2. Introduction



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# Lighthouse Green Fuels

## Who we are

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.

Alfanar at a glance:

- Global renewable power portfolio of **1.75GW**
- **Over 45 years** of experience in manufacturing, integrated development, engineering, construction, operation and maintenance
- over **20,000 employees** across **24 countries**, including over 200 employees from the Alfanar Group in the UK.

In 2018, Alfanar acquired rights and infrastructure for the Project Site, which is located in Billingham, Stockton-on-Tees.





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# 3. Project background



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# Lighthouse Green Fuels

## About Lighthouse Green Fuels

Lighthouse Green Fuels is a waste-to-sustainable aviation fuel (SAF) project, which will convert waste and/or waste biomass into aviation fuel at the Project Site, Billingham, Stockton-on-Tees.

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.



The Project will be the **largest facility of its kind in Europe**



The Project is helping deliver the **government's Jet Zero Strategy**



The Project will play a leading role in **decarbonising the aviation industry**



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## Lighthouse Green Fuels in numbers



**Over £1 billion investment** in the UK



**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



**2028** planned **commercial operations**



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**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 to conventional aviation fuel, rising 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



# Lighthouse Green Fuels

## Need for the Project

The aviation industry has the potential to become the largest emitter of carbon dioxide globally by 2050.

Passenger numbers are set to quadruple compared with pre-pandemic levels to 16 billion passengers per year.

Domestically-produced fuel and ensuring the future of the UK's energy security is becoming more important in an uncertain global economy.

The UK also has access to permanent offshore geological stores (i.e. depleted oil and gas fields) which can be used to store carbon.





## Why sustainable aviation fuel?

Decarbonising the UK aviation industry is a greater challenge than decarbonising other forms of transport. Several decarbonisation routes have been proposed, 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



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# 4. Our Proposals



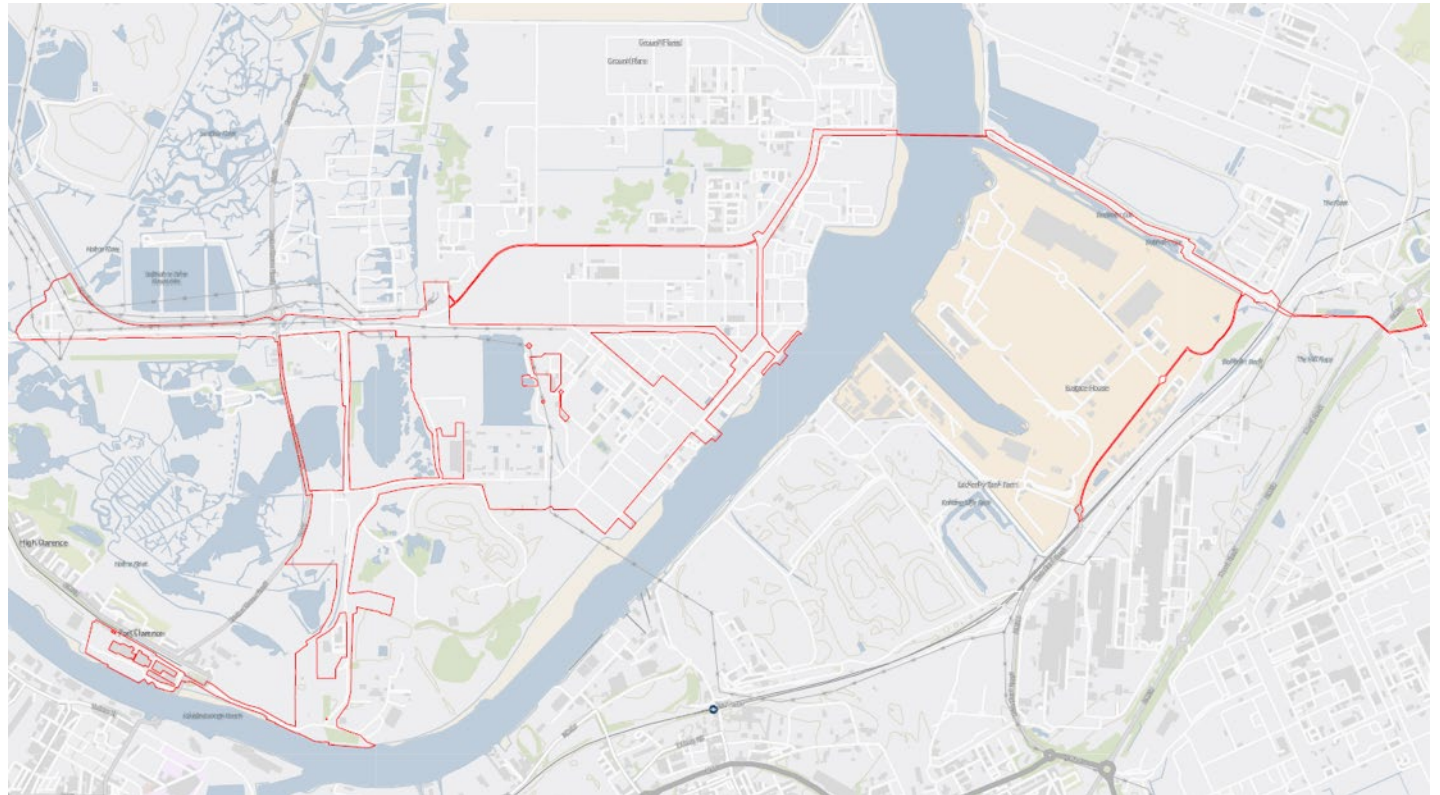
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## The Project Site

The site is considered to be suitable for SAF production for a number of reasons, including that it:

- Is located within an existing industrial area
- Is a brownfield site, with no development proposed on green belt land
- Was previously permitted to process household and commercial waste via an energy-from-waste gasification facility
- Has existing utility connections, including electricity, natural gas and oxygen supplies
- Has access to nearby rail terminals for transportation and storage of the fuel and/or feedstock



The Project Site comprises approximately 274.49 hectares (ha) in area, which is around the size of **385 football pitches**.



## Project Site main infrastructure

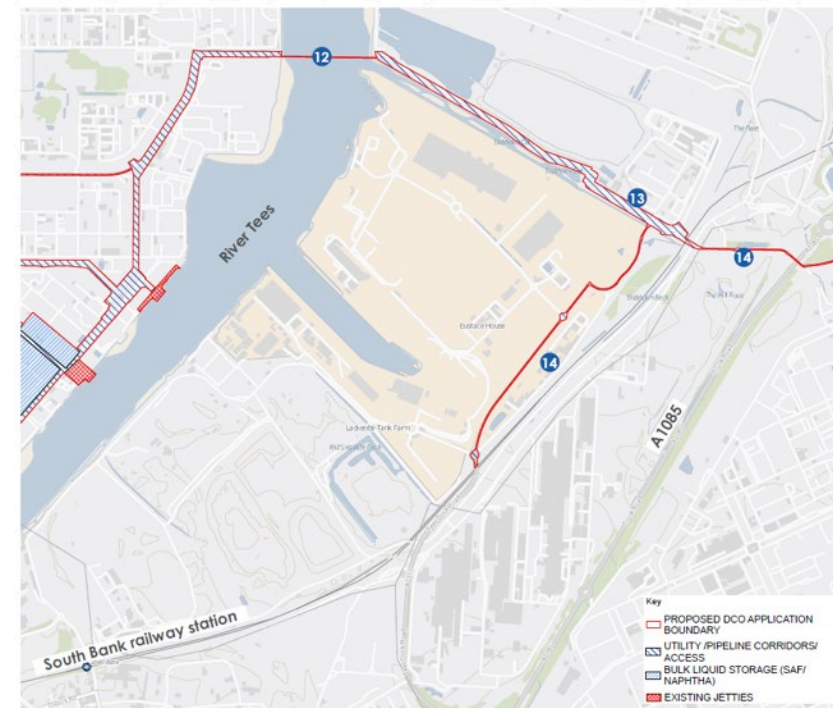
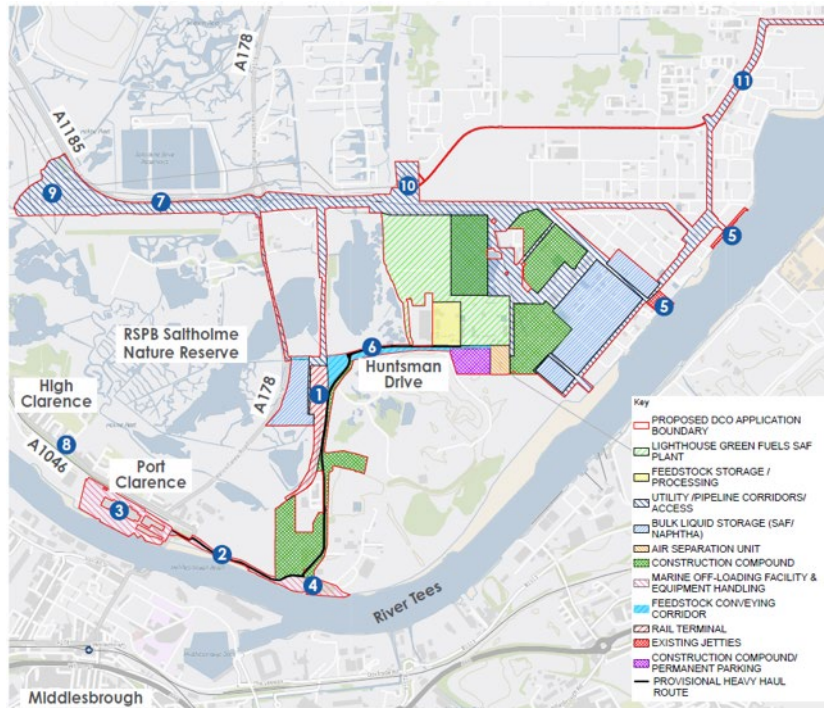
Lighthouse Green Fuels will use gasification and Fischer-Tropsch processes to create SAF. Both processes are proven and in use around the world. Several processing steps are required to synthesise SAF and green naphtha from sustainable feedstocks on an industrial scale. As a result, the following main project elements will be required:

- Feedstock storage and pre-processing area
- Gasification plant
- Syngas clean-up
- Fischer-Tropsch unit and Product upgrading unit
- Flare area
- Auxiliary boiler
- Wastewater treatment plant
- Utilities
- Existing combined-cycle gas turbine (CCGT) power plant
- Temporary equipment storage
- Administration facilities



## Indicative Project Site layout plan

We are now presenting our initial designs for the proposed layout of the Project Site as shown on the Indicative Site Layout Plans. These Plans can be found on our website, in our materials and at our face-to-face consultation events.





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# 5. Environmental Impact Assessment (EIA)



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## Environmental Impact Assessment (EIA)

EIA identifies the potential effects on the environment, people and local communities during the construction and operation phases of the project.

Throughout the design process we have attempted to reduce impacts in the local area and considered how we can provide enhancements as part of the Project.

The initial findings for the EIA can be read in the Preliminary Environmental Information Report (PEIR) and its Non-Technical Summary (NTS).

The PEIR has been prepared for the purposes of statutory consultation.

We will update the Project proposals in response to feedback where possible. As part of this application, we will provide a full Environmental Statement, which will report the outcome of the EIA process.





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## Environmental Impact Assessment (EIA) (cont.)

The PEIR covers the following topic areas:

- **Chapter 1** – Introduction
- **Chapter 2** – Site and Proposed Scheme Description
- **Chapter 3** – Approach to EIA
- **Chapter 4** – Energy and Planning Policy
- **Chapter 5** – Air Quality
- **Chapter 6** – Noise and Vibration
- **Chapter 7** – Terrestrial Ecology
- **Chapter 8** – Marine and Freshwater Ecology
- **Chapter 9** – Water and Environmental Flood Risk
- **Chapter 10** – Landscape and Visual
- **Chapter 11** – Greenhouse Gasses
- **Chapter 12** – Climate Change Resilience
- **Chapter 13** – Materials and Waste
- **Chapter 14** – Socioeconomics
- **Chapter 15** – Population and Human Health
- **Chapter 16** – Traffic and Transport
- **Chapter 17** – Major Accidents and Disasters
- **Chapter 18** – Marine Navigation
- **Chapter 19** – Cumulative Effects
- **Chapter 20** – Summary of Likely Significant Effects



# Lighthouse Green Fuels

## Landscape and visual

Views of Lighthouse Green Fuels from Billingham, Port Clarence, neighbouring RSPB Saltholme, the wider River Tees and wetland landscape have been taken into consideration in developing the design of the Project Site.

These visualisations of the Project show the expected layout and orientation of onsite infrastructure.

These show the largest expected extent 'envelopes' or blocks for the proposed plant buildings and structures.



Proposed 53.5° view from RSPB Saltholme (the maximum parameters for every element are shown to illustrate the worst-case scenario).



Proposed 53.5° view from the Middlesbrough Transporter Bridge (the maximum parameters for every element are shown to illustrate the worst-case scenario).



# 6. Consultation and next steps





## Our statutory consultation

The consultation is taking place between **Thursday 16 May and Thursday 20 June 2024**.

We welcome all views on our detailed design proposals.

Your feedback will help us to shape our proposals for our application, which we expect to submit to the Planning Inspectorate (PINS) later this year.

### We would like your feedback on:



The need for the Project



The Project Site, including indicative locations of equipment and infrastructure within this area



The consultation



Measures we are proposing to reduce the impacts associated with the Project



Any other feedback on local issues or sensitivities of which we should be aware



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## How to take part in our consultation

Attend a public consultation event

| Venue   | Date                   | Time            |
|---|------------------------|-----------------|
| <b>Billingham Forum, Town Centre, The Causeway, Stockton-on-Tees, Billingham TS23 2LJ</b> | Saturday 1 June 2024   | 12pm to 5pm     |
| <b>High Clarence Primary School, Port Clarence Road, Middlesbrough TS2 1SY</b>            | Wednesday 5 June 2024  | 3pm to 8pm      |
| <b>Billingham Rugby Club, Greenwood Rd, Billingham, Stockton-on-Tees TS23 4BA</b>         | Thursday 6 June 2024   | 10am to 5pm     |
| <b>Online webinar 1</b>   | Tuesday 28 May 2024    | 6:30pm to 8pm   |
| <b>Online webinar 2</b>   | Tuesday 4 June 2024    | 10am to 11:30am |
| <b>Online webinar 3</b>   | Wednesday 12 June 2024 | 10am to 11:30am |



## How to take part in our consultation

### View information

On our website [www.lighthousegreenfuels.co.uk](http://www.lighthousegreenfuels.co.uk)

In person at a local information point:

**Billingham Library**, Kingsway, Billingham TS23 2LN

Materials available to collect at these locations include:

- Consultation Information Booklet
- Feedback Questionnaires
- Consultation Newsletters
- Maps and Plans
- Non-Technical Summary (NTS) of the Preliminary Environmental Information Report (PEIR)

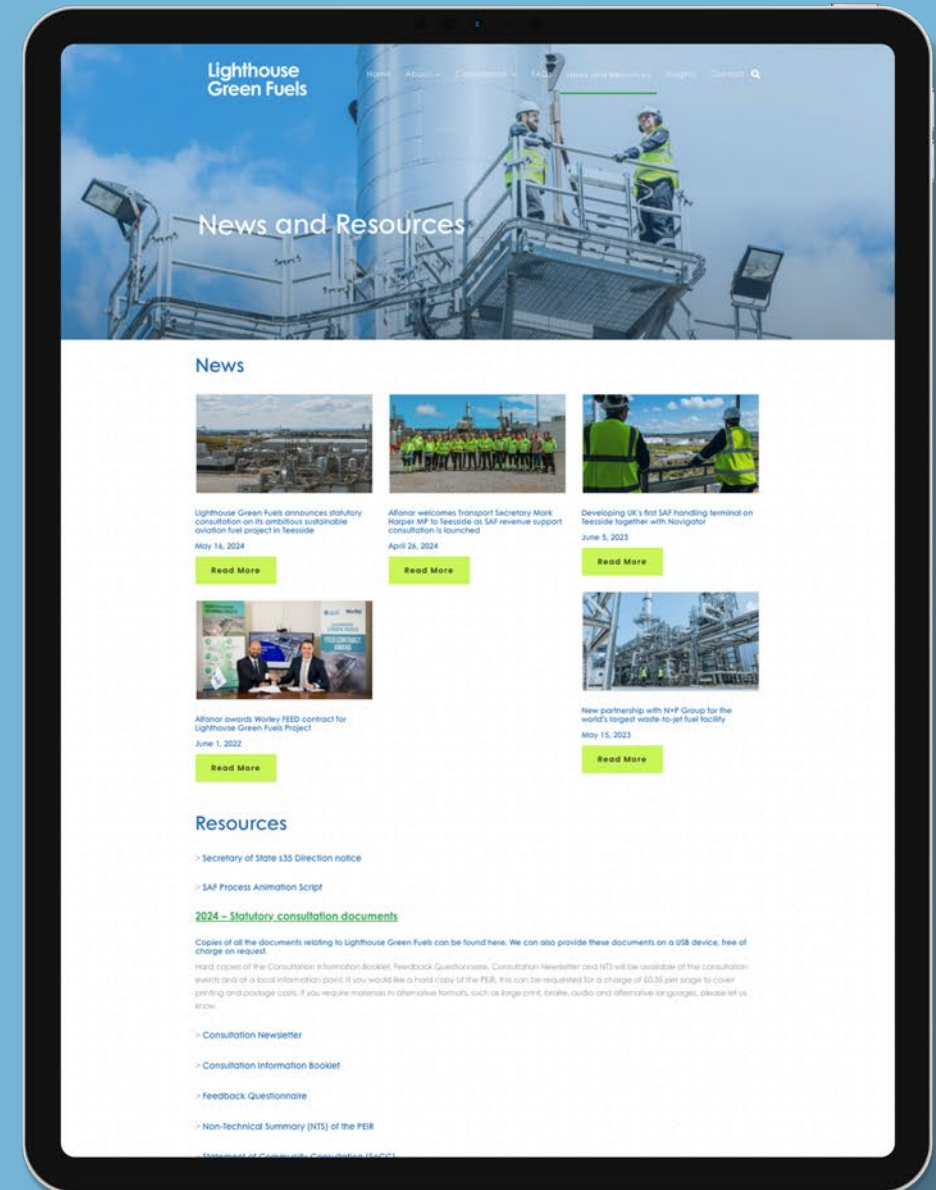
Printed copies of the following will be available to inspect (but not take away)

- Statement of Community Consultation (SoCC)
- PEIR



## Our materials – website

Visit our documents library for a full suite of materials:  
[www.lighthousegreenfuels.co.uk/news-and-resources](http://www.lighthousegreenfuels.co.uk/news-and-resources)



## Providing feedback online

Can be found on the website at:

[www.lighthousegreenfuels.co.uk/feedback](http://www.lighthousegreenfuels.co.uk/feedback)

### Lighthouse Green Fuels

#### Statutory Consultation Feedback Questionnaire

16 May – 20 June 2024

**Please complete this feedback questionnaire to let us know your views on our proposals for Lighthouse Green Fuels. The deadline for responses is 11:59pm on Thursday 20 June 2024.**

We are developing proposals for a sustainable aviation fuel plant and associated infrastructure.

Your views are important to us, which is why we are asking for them as part of our statutory pre-application consultation in which we are presenting detailed proposals for Lighthouse Green Fuels. This statutory consultation is being undertaken under the requirements of the Planning Act 2008. We will consider and have regard to all the feedback received in developing our proposals, before we submit our application for development consent to the Planning Inspectorate.

We have prepared a Consultation Information Booklet, which includes a description of the project elements, information about the Environmental Impact Assessment (EIA), the Preliminary Environmental Information Report (PEIR) and details of how you can respond to the consultation.

You can read our Consultation Information Booklet to help you provide us with your feedback on our proposals. You may wish to refer to the PEIR or to the shorter non-technical summary (NTS) of the PEIR for more detailed information.

You do not have to answer all the questions in this feedback questionnaire, and if you wish to make any other comments on the Project there is space available at the end of this questionnaire.

The statutory consultation will run from **Thursday 16 May 2024 to 11:59pm on Thursday 20 June 2024**. It is important you submit your feedback to us before the closing date, so that it can be considered in our proposals.





## Providing feedback

Provide feedback either online or in writing, by:

- Completing an online feedback questionnaire, which can be accessed during the consultation period via our website
- Collecting a feedback questionnaire from one of our consultation events, the local information point or on request
- Returning your completed feedback questionnaire to us at our consultation events, by email ([info@lgf.co.uk](mailto:info@lgf.co.uk)) or by post (by writing 'FREEPOST LIGHTHOUSE GREEN FUELS' on a blank envelope – no stamp required)
- Providing your free form comments by email or post.

**The deadline for providing feedback is 11:59pm on Thursday 20 June 2024.**



## How we will use feedback and next steps

Once the consultation has closed at **11:59pm on Thursday 20 June 2024**, we will review all comments and suggestions that have been received during the consultation period.

We will set out a summary of the responses that you have provided in a Consultation Report, which will detail how we have had regard to your feedback and how your feedback has influenced the proposals. This report will form part of our application for development consent which we expect to submit later this year.

Once our application for development consent has been accepted, the Planning Inspectorate (acting on behalf of the Secretary of State) will examine the application.

You will be able to register your interest in our proposals directly with the Planning Inspectorate, who will then inform you about the progress of our application during the examination process, and let you know about further opportunities you will have to inform and contribute to the planning process. More information can be found at:

<https://infrastructure.planninginspectorate.gov.uk/application-process/the-process/>





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## Keeping in touch

Please get in touch using the details below:



[www.lighthousegreenfuels.co.uk](http://www.lighthousegreenfuels.co.uk)



[info@lgf.co.uk](mailto:info@lgf.co.uk)



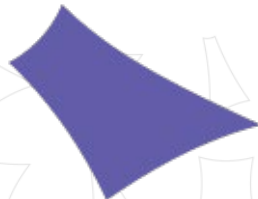
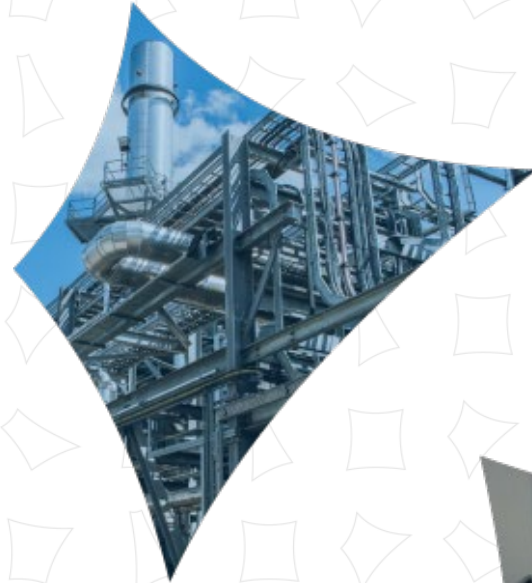
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# 7. Q&A



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