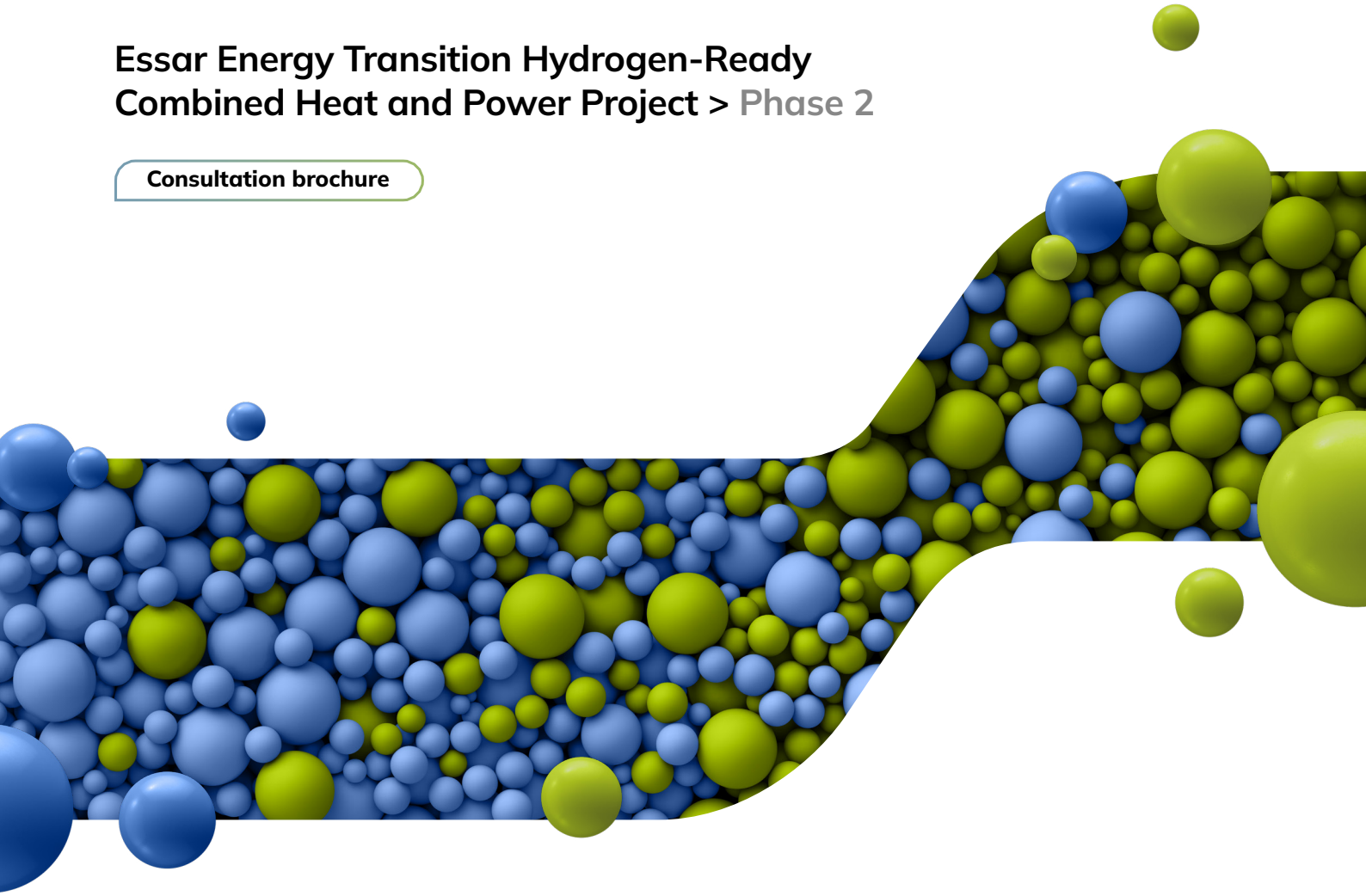
ESSAR ENERGY TRANSITION

Powering change towards a lower carbon future

Essar Energy Transition Hydrogen-Ready Combined Heat and Power Project > Phase 2

Consultation brochure





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Foreword and welcome

Thank you for taking the time to learn more about the Essar Energy Transition Hydrogen-Ready Combined Heat and Power (CHP) Project – Phase 2 (‘the Proposed Development’) at Stanlow Manufacturing Complex, Ellesmere Port (‘the refinery’).

Essar Energy Transition is committed to supporting the transition to a low carbon future. Through a range of projects across the refinery, we are investing in the technologies and infrastructure needed to reduce emissions, support industrial decarbonisation and help support the UK's energy transition.

Essar Energy Transition is taking a phased approach to the development of hydrogen-ready combined heat and power at the refinery. CHP Phase 1 and the Proposed Development are separate developments capable of operating independently, with different generating capacities and therefore different consenting requirements.

CHP Phase 1 comprises a smaller 49.5 megawatt (MW) hydrogen-ready facility and is being progressed separately through the Town and Country Planning Act 1990 (TCPA) process. This application was submitted to Cheshire West and Chester Council in December 2025.

The Proposed Development is a larger development with a proposed generating capacity which exceeds the 50MW threshold for a TCPA application.

This means that for the project to proceed it must go through the planning process for Nationally Significant Infrastructure Projects (NSIPs) which requires an application for a Development Consent Order (DCO) to the Planning Inspectorate (PINS).

Taking a phased approach allows Essar Energy Transition to progress additional generating capacity while the Proposed Development progresses through the DCO process. Together, the projects form part of a longer-term programme to provide the energy infrastructure needed to support the refinery’s transition, help drive continuous improvements in environmental performance, and underpin its future role as an energy transition hub.

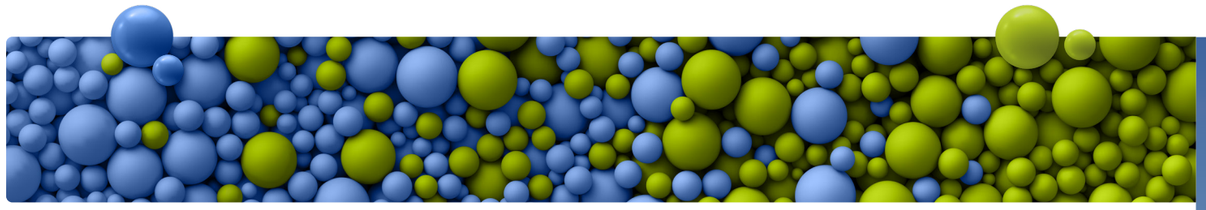
This consultation provides an opportunity to learn more about the proposals, understand how the Proposed Development could support the refinery’s wider roadmap to decarbonisation and to share your views before the DCO application is submitted.

We encourage everyone with an interest in the project to review the information presented and take part in the consultation.

About Essar Energy Transition and the refinery

EET Fuels, the trading name of Essar Oil (UK) Limited (company number 15928581), part of Essar Energy Transition, owns and operates the refinery, which plays an important role in the UK's energy infrastructure, supplying the fuels and energy products that help keep people and businesses moving. Today, the refinery supplies 18% of the UK's transport fuel and 12.5% of the nation's aviation fuel.

It is also an important part of the local and regional economy, supporting over 3,800 direct and indirect jobs, along with 110 apprentices and graduates. The refinery contributed an estimated £336 million to the UK economy in 2025, including £118 million to the regional economy.



3,800+ Jobs supported

110 Apprentices and graduates

£336 million Contributed to the UK economy

£118 million Contributed to the regional economy

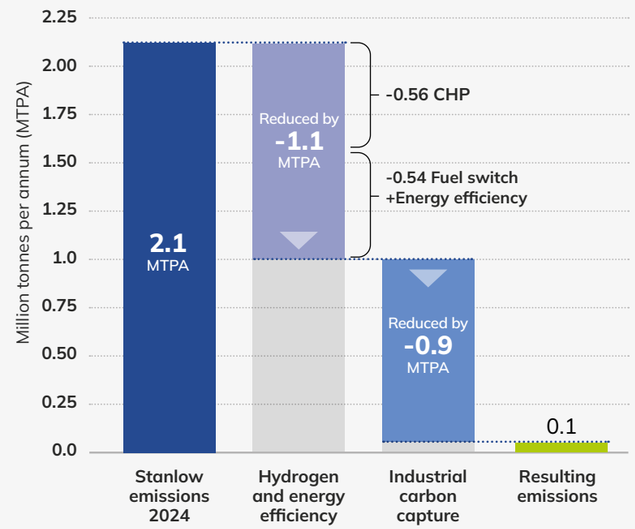
As the UK moves towards a lower carbon future, Essar Energy Transition wants to build on this long-standing role and ensure the North West continues to be an important centre for energy, investment and skilled employment.

Our vision is to transform the refinery into a major energy transition hub and become a leading producer of low carbon fuels. To help achieve this, Essar Energy Transition has a £4.3 billion investment pipeline to develop a range of low carbon energy projects in the UK through to 2035.

This investment is about more than transforming how energy is produced. It is also about supporting the transition of an established industrial area, retaining and developing valuable skills and creating new opportunities for local people. Through our investment programme, we aim to support the UK's transition to a lower carbon economy and create more than 9,500 direct and indirect highly skilled employment opportunities in Ellesmere Port and the wider North West by 2035. [1]

The chart below showcases our plan for reducing carbon emissions from our 2024 baseline, using a combination of strategies including investing in hydrogen power, energy efficiency projects and carbon capture technology.

Figure 1: Carbon emissions reduction plan from 2.1 MTPA to 0.1 MTPA



The Proposed Development

The Proposed Development forms part of wider plans to support the refinery's transition to low carbon energy production and transform the site into a leading energy transition hub. The hydrogen-ready facility would provide reliable power and steam for the refinery, replacing ageing infrastructure and improving resilience of the refinery's energy supply. It would also provide additional generating capacity and flexibility needed to support the future development of the wider refinery operations and other nearby industrial users.

The Proposed Development would involve the construction and operation of new hydrogen-ready gas turbines, steam turbines and heat recovery steam generators. Together, this new equipment could contain up to 560MW of installed generating infrastructure. This is the maximum combined capacity of the individual generating units. The facility is expected to provide around 200MW of firm operating power to the refinery, to maintain existing site operations, while supporting future decarbonisation projects.

The new generating infrastructure would be capable of using 100% hydrogen in the future. This would improve energy resilience and enable industrial decarbonisation by reducing the refinery's reliance on existing fossil fuel-based power and steam generation, as low carbon hydrogen becomes available. Hydrogen can provide a lower-carbon alternative to conventional fossil fuels, helping Essar Energy Transition reduce its carbon emissions and supporting the wider decarbonisation of industry in the area.



[1] ***Source:*** Jobs figures include direct + indirect + induced figures quoted from Essar Energy Transition GVA report produced by Nexant 2026.

This proposed development will:

- Support energy resilience
- Replace ageing infrastructure
- Provide dispatchable hydrogen-ready power and dependable energy to maintain existing site operations, and support future decarbonisation projects.

The main power generation equipment would be located within the refinery. Some of the associated utilities infrastructure would extend beyond the refinery, including onto neighbouring land.

The final arrangement and number of individual components would be determined as the design develops and would be subject to the relevant environmental assessment and consenting processes.

An Indicative Plan showing the locations of key infrastructure is provided below. Our plans are still in development and are subject to change following feedback and consultation with statutory bodies and the local community.

Plan 1: **Key Infrastructure Locations** (Plans are under development and may be subject to change)



CHP Phase-2 Draft Order Limits **Indicative CHP Development Zone** **Indicative Construction Laydowns & Compounds**
Indicative Backup Generation Zones 1, 2 & 3 **Indicative utilities and pipe rack corridors**

The Proposed Development is expected to include

- Up to **five** hydrogen-ready gas turbine modules
- Up to **five** Heat Recovery Steam Generators (HRSGs)
- Up to **two** HRSG stacks
- Up to **six** Steam Turbine Generators (STGs)
- Up to **120MW** of supporting generation capacity
- Up to **100MW** of battery storage
- **Three** multi-fuel boilers
- A hybrid cooling tower
- Electrical infrastructure and connections to existing site systems
- Pipework and associated connections
- Temporary construction compounds and welfare facilities
- Other ancillary infrastructure required to facilitate construction and operation

Construction

If development consent is granted, construction work would be expected to include preparing and clearing the site, undertaking groundworks and foundation works, installing the main CHP plant and associated infrastructure, providing new pipework and electrical connections, and testing and commissioning the facility before it becomes operational.

The construction period is anticipated to take approximately 16 months.

Modular construction would be used where practical, meaning that some components could be manufactured or assembled away from the refinery before being transported to the refinery for installation. This can help reduce the amount of construction activity required on the refinery, although delivery of large components may require specific transport arrangements.

Temporary construction compounds, laydown areas, parking and workforce welfare facilities are likely to be required.

Environmental mitigation required during construction will be secured within the DCO. This would ensure that the environmental effects of construction activities are managed, with methods such as:

- Controlled construction working hours
- Controls for noise, dust and lighting, where required
- Designated routes and delivery times for construction traffic
- Management of abnormal load deliveries
- Regular communication updates to local communities and stakeholders







How does this relate to CHP Phase 1?

Essar Energy Transition is taking a phased approach to developing new CHP infrastructure at the refinery.

CHP Phase 1

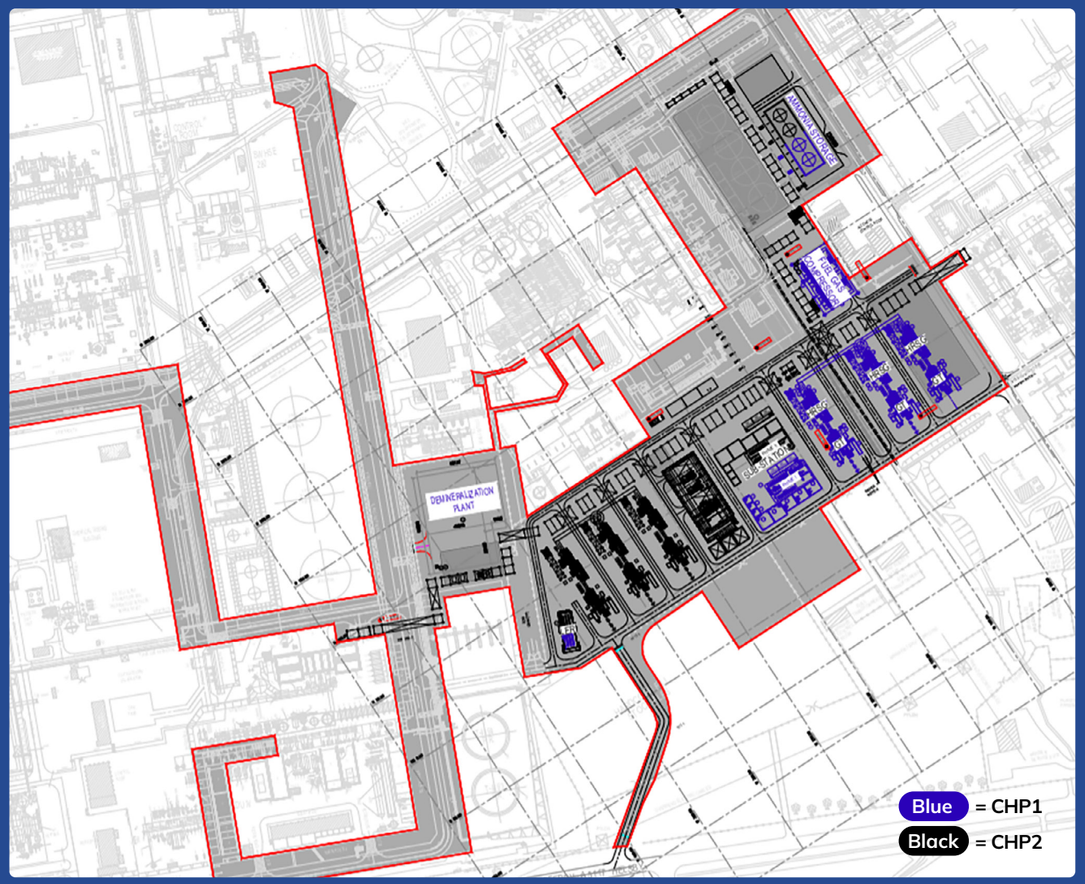
CHP Phase 1 is a separate development comprising a smaller 49.5MW hydrogen-ready CHP facility. A planning application for CHP Phase 1 was submitted to Cheshire West and Chester Council in December 2025 under the Town and Country Planning Act 1990 (TCPA).

CHP Phase 2

CHP Phase 2, which is the subject of this consultation, is a separate development with a substantially greater generating capacity.

CHP Phase 1 and CHP Phase 2 are capable of operating independently and are being progressed through separate consenting processes. The two projects form part of Essar Energy Transition's wider programme to modernise the energy infrastructure at the refinery. Progressing CHP Phase 1 separately allows Essar Energy Transition to bring forward additional generating capacity while the larger Phase 2 project progresses through the DCO process.

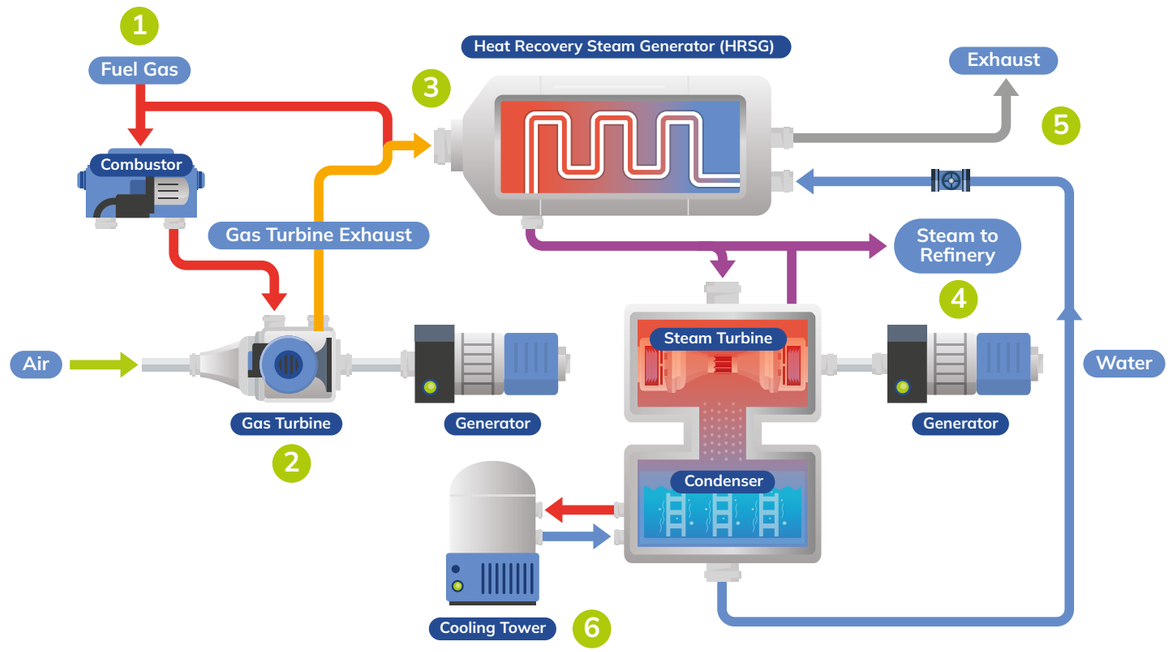
Plan 2: Proposed plan for CHP Phase 1 (Shows indicative locations of the CHP Phase 2 infrastructure.)



How the CHP facility would work

CHP produces electricity and uses heat from the same process. The useful heat would be recovered to produce steam, which is required by manufacturing operations across the site.

Diagram 1: The CHP process



The process works in six main stages:

1. **Fuel enters the facility**
   The gas turbines would be capable of using a range of fuels, including low carbon hydrogen.
2. **Electricity is generated**
   Fuel would power the gas turbines, which would drive generators to produce electricity.
3. **Heat is recovered**
   Hot exhaust gases from the turbines would pass through heat recovery steam generators. Instead of allowing this heat to go to waste, it would be used to heat water and produce steam.
4. **Steam is used**
   Steam would be supplied to our operations. Some of this would also pass through steam turbines to generate additional electricity.
5. **Emissions are cleaned**
   Before being released, exhaust gases would pass through specialist treatment equipment that helps reduce emissions. This helps to minimise the refinery's impact on local air quality and operate efficiently.
6. **Remaining heat is removed**
   After useful heat has been recovered for steam production, any remaining heat would be removed through the cooling system. Hybrid cooling towers would be designed to minimise visible water vapour except during very cold conditions.

The Development Consent Order process

The Proposed Development is classified as a Nationally Significant Infrastructure Project (NSIP) under the Planning Act 2008 and therefore requires a DCO before it can be built. This is the planning process used for major infrastructure projects in England.

This public consultation is an important part of the process. It gives communities and other interested parties an opportunity to learn about the proposals and provide feedback, which will help inform the development of the project.

We are currently in the pre-application stage, where we are developing our proposals, carrying out consultation, and undertaking environmental assessments. Once these are complete, we will submit an application to the Planning Inspectorate (PINS), which manages the process on behalf of the Secretary of State for Energy Security and Net Zero.

If the application is accepted for examination, interested parties will be able to register and take part in the process. Following the examination, PINS will make a recommendation to the Secretary of State, who will decide whether development consent should be granted.



You can find out more about the DCO process here:
national-infrastructure-consenting.planninginspectorate.gov.uk/decision-making-process-guide

Environmental considerations

As part of the DCO process, an Environmental Impact Assessment (EIA) is being carried out to assess the likely significant effects that the Proposed Development may have on the surrounding environment, as well as socio-economic and local community effects.

We have submitted an EIA Scoping Report to PINS, which sets out the proposed environmental topics and assessment methodologies, potential impacts and predicted likely significant effects of the Proposed Development.

While we are not consulting on the Scoping Report, which forms part of a separate process involving the local planning authority and statutory bodies, a copy can be viewed for information at *https://tinyurl.com/3hyav7he*

We received formal feedback from PINS on the Scoping Report in October 2026, and this feedback (known as the 'Scoping Opinion') will be used to inform how we carry out the EIA.

We are currently carrying out a range of environmental surveys and technical studies on and around the refinery in relation to the Proposed Development. This work will form our understanding of the 'baseline' environment on and surrounding the site of the Proposed Development, and it will enable us to predict the impacts of the Proposed Development. Additionally, along with feedback from this consultation, the baseline work will help to inform mitigation measures for the Proposed Development. This includes identifying measures where possible to avoid, reduce, mitigate or offset any likely significant effects that are identified as a result of the EIA.

The areas highlighted below summarise the environmental topics being assessed to help build a clear understanding of key local receptors.



01
Air quality

We are assessing how potential emissions during construction and operation of the Proposed Development could affect people and ecological habitats. This is being informed by air quality monitoring data and detailed modelling studies. Potential mitigation includes best practice construction controls, stack design measures and compliance with environmental permitting requirements.



02
Biodiversity

Whilst the site of the Proposed Development has been previously developed as part of the wider refinery, it may still provide habitats for wildlife. Many species such as bats and great crested newts are protected by law, so we are required to carry out ecological surveys to understand which species may be present. Our approach also considers nearby protected sites such as Gowy Meadows and the Mersey Estuary.

The survey findings will help inform measures to avoid impacts on wildlife where possible, as well as identify potential opportunities for habitat enhancement and biodiversity improvement.



03
Climate change

We are assessing how the Proposed Development could affect climate change, including the amount of carbon dioxide associated with its construction and operation. We are also considering how future changes in the climate, such as more extreme weather events, could affect the Proposed Development and how resilient it would be to these changes. The findings will help us identify opportunities to reduce emissions and ensure that climate resilience is considered as the design develops.

04
Cultural Heritage

Our assessments include consideration of cultural heritage, including nearby sites and buildings of historical interest. We are considering whether there could be any changes to their setting and surroundings as a result of the Proposed Development. The findings will help us identify opportunities to reduce potential effects on cultural heritage and ensure these are taken into consideration as the design develops.





05
Ground conditions and soils

We are assessing the nature of the ground and soils within the area of the Proposed Development, including any existing areas of contamination. We are also considering how the Proposed Development could affect soils and ground conditions. The findings will help us identify opportunities to avoid or reduce potential effects.

06
Landscape and visual

We are considering how the Proposed Development could affect the surrounding landscape and views of the refinery, including from nearby communities in Elton, Thornton-le-Moors and Ince, as well as wider surrounding areas. The findings will help us identify any possible opportunities to minimise visual effects through measures such as screening, landscaping and the sensitive siting of infrastructure.





07
Noise and vibration

We are considering potential changes to noise and vibration levels in nearby communities, including Elton, Ince and Thornton-le-Moors. Baseline monitoring and specialist acoustic assessments will establish existing conditions and help us understand potential effects and how these could be reduced.



08
Major accidents and disasters

We are looking at how major accidents and disasters such as earthquakes and flooding could affect the Proposed Development. This will help us to consider appropriate measures to make it more resilient to those events.



09
Materials and waste

The Proposed Development will require raw materials, including concrete and steel, and will generate waste. We are considering these requirements as the design develops and looking for opportunities to minimise significant impacts associated with material use and waste management.



10
Population & human health

Our assessment will consider potential effects on the local population and human health, including factors such as housing, access to local services, demographics and health. The findings will inform the developing design and help identify ways to avoid or reduce negative effects.

11 Socio-economics

We are looking at potential effects on the local economy and surrounding communities. This includes considering employment opportunities for local people that could arise as a result of the Proposed Development.

12 Traffic and transport

Traffic and transport assessments will help us understand potential effects on the local road network and how additional traffic can be accommodated. This includes considering appropriate vehicle routing strategies and, where possible, avoiding routes through local villages.

13 Water environment

Our assessment will consider potential effects on the water environment, including flood risk, surface water drainage and water quality, as well as how future flood risk and water management requirements could influence the design. We will also consider potential effects on nearby protected environments, including Gowy Meadows and the Mersey Estuary, and identify measures to avoid or reduce significant effects where necessary.

14 Cumulative effects

We will consider how the Proposed Development could interact with other committed developments in the local area and whether, together, they could result in significant effects. We are liaising with the local planning authority and the Planning Inspectorate so that our assessment takes account of the latest available information about other developments. Any potential cumulative effects identified will be considered as the design develops.



Environmental permitting

Alongside the DCO application, a variation to the site's environmental permit will be required for the development to go ahead. Variations to environmental permits are granted and managed by the Environment Agency.

Environmental permits regulate the operation of the site and ensure that activities are undertaken in accordance with environmental standards designed to protect people and the environment.

The permitting process will consider relevant matters such as management arrangements, emissions to air, water and ground, operational controls, monitoring requirements and the use of Best Available Techniques. Any permit would set legally enforceable conditions that Essar Energy Transition must meet, and compliance would be overseen by the Environment Agency.

What happens next

After this consultation closes on 18 November 2026, we will review and consider all feedback received on our proposals. A consultation summary report will then be prepared to explain how feedback has been taken into account as the project develops.

We will continue our environmental assessment work to better understand the surrounding environment. These assessments will help us to refine our proposals, before we submit an application for development consent in 2027.

Project timeline

Oct-Nov 2026	Quarter 2 2027	Quarter 4 2027	Quarter 4 2028
01	02	03	04
Public consultation	**Submit DCO application**	**Examination**	**Decision**

How to get involved in the consultation

We are seeking your views on the Proposed Development. Feedback received from local communities and stakeholders will play an important role in informing and refining the proposals as they continue to evolve prior to submission of the DCO application.

The consultation will run from 20 October to 18 November 2026, and we encourage participation from the local community and stakeholders. The deadline for submitting a response is 23:59 on Wednesday 18 November 2026.

You can share your feedback by completing the online form available on our website: **eethydrogenpower.com/engage/chp2planning**

Alternatively, you can email your feedback to **H2Power@eetfuels.com**

Send a written response using our freepost mailing address to: **Freepost CHP2.**

Scan the QR code to view the full GDPR/Privacy Statement: **https://eethydrogenpower.com/wp-content/uploads/2026/10/GDPR-and-Privacy-Statement-CHP-Project-2026.pdf**



The consultation will run from 20 October to 18 November 2026.

Events

We are hosting two in-person events as part of the consultation. Here attendees will be able to review the plans, learn more about the Proposed Development and its benefits, and meet and put questions to members of the project team.

Visit a consultation event near you:

Monday 2 November 2026

12:00 - 16:00

Elton Community Centre, School Lane, Elton, Chester, CH2 4PU

Wednesday 4 November 2026

14:00 - 19:00

The Whitby Sports & Social Club, Dunkirk Lane, Chester Road, Whitby, Ellesmere Port, CH65 6QF

Glossary

Please find below an explanation of the technical terms used throughout this document.

Best Available Techniques (BAT): The most effective and advanced methods of operating an industrial process to prevent or minimise emissions and environmental impacts, while also being technically and economically viable.

Carbon Capture: A process that captures carbon dioxide (CO_2) emissions before they are released into the atmosphere and enables them to be transported and stored safely.

CHP (Combined Heat and Power): A technology that generates electricity and steam from the same process, helping make more efficient use of energy.

Decarbonisation: The process of reducing carbon emissions associated with energy production, industrial activities and transport.

Development Consent Order (DCO): A type of planning consent required for Nationally Significant Infrastructure Projects (NSIPs) in England.

Energy Resilience: The ability of energy systems to withstand, adapt to, and recover from disruptions, ensuring a reliable energy supply for the nation.

Energy Transition: The move away from the reliance on fossil fuels like coal, oil and natural gas to more renewable energy sources.

Environment Agency: A UK public body that works to protect and improve the environment.

Environmental Impact Assessment (EIA): A process used to identify and assess the likely environmental effects of a proposed development.

Heat Recovery Steam Generator (HRSG): Equipment that captures heat from a gas turbine and uses it to produce steam.

Hydrogen-Ready: Infrastructure that has been designed so it can support the future use of low carbon hydrogen as a fuel.

Industrial Decarbonisation: Reducing carbon emissions from industrial processes and energy-intensive activities.

Low Carbon Power and Steam: Electricity and steam generated using technologies designed to produce reduced carbon emissions compared with conventional alternatives.

Nationally Significant Infrastructure Project (NSIP): A large-scale infrastructure project that requires a Development Consent Order.

Planning Inspectorate (PINS): The organisation responsible for examining DCO applications and making recommendations to the relevant Secretary of State (in this case the Secretary of State for Energy Security and Net Zero).

Secretary of State: The government minister responsible for making the final decision as to whether a Development Consent Order should be granted.

Stanlow Manufacturing Complex ('the refinery'): The industrial and energy production site near Ellesmere Port where Essar Energy Transition's operations and energy transition projects are located.

Steam Turbine: A machine that converts steam into electricity.

ESSAR ENERGY TRANSITION

Contact us

If you would like to learn more about the proposals, additional information is available on the project website, including consultation materials, supporting documents and details of how to take part in the consultation.

You can also attend one of our consultation events where members of the project team will be available to explain the proposals and answer questions.

If you require this information in an alternative format, please contact the project team using the details provided below.

Consultation website:
https://eethydrogenpower.com/engage/chp2planning/

Scan the QR code to view the full GDPR/Privacy Statement:
https://eethydrogenpower.com/wp-content/uploads/2026/10/GDPR-and-Privacy-Statement-CHP-Project-2026.pdf

Phone number: 0151 350 4000

Email address: H2Power@eetfuels.com

Freepost address: Freepost CHP2

The applicant for the Proposed Development is EET Fuels (a trading name of Essar Oil UK Limited (company number 15928581)).

EET Fuels is the fuels division of Essar Energy Transition, which is the collective brand name for the Essar group of companies. Essar Energy Transition includes EET Fuels, Stanlow Terminals, EET Hydrogen and Power and EET Retail. Essar Energy Transition has been used throughout this brochure for branding purposes.