



Net Zero
Teesside

The UK's first decarbonised industrial cluster by 2030

Have your say



Overview

Net Zero Teesside (NZT) is a Carbon Capture, Utilisation and Storage (CCUS) project which aims to develop a network to enable the decarbonisation of a cluster of carbon-intensive businesses on Teesside by as early as 2030 and deliver the UK's first zero-carbon industrial cluster.

NZT will be the UK's first commercial scale, full chain CCUS project, and has the potential to capture up to 10 million tonnes (Mt) of carbon dioxide (CO₂) emissions per annum, the equivalent to the annual energy use of up to 3 million homes in the UK. NZT will therefore make a significant contribution toward the UK reaching its net zero greenhouse gas emissions target by 2050.

NZT will comprise of a number of elements, including a new gas-fired power station, with state-of-the-art carbon capture technology. CO₂ from the power station, as well as from a cluster of local industries on Teesside, will be captured through a common CO₂ pipeline network and transported for secure storage at a suitable offshore geological site under the North Sea.

NZT is being promoted by Net Zero Teesside Power Limited (NZT Power) and Net Zero North Sea Storage Limited (NZNS Storage). NZT Power and NZNS Storage (together the Applicants) will be responsible for obtaining the consents required for NZT and are seeking the views of the local community on the latest proposals.

Who are NZT Power and NZNS Storage?

NZT Power and NZNS Storage have been incorporated on behalf of OGCI Climate Investments LLP (OGCI CI). OGCI CI is part of the Oil and Gas Climate Initiative (OGCI), a CEO-led consortium that aims to accelerate the industry response to climate change and whose membership accounts for over 30% of global operated oil and gas production. One of OGCI CI's key investments is NZT.

NZT is owned by OGCI CI as a non-operating shareholder. From the end of June 2020, NZT will be developed by five OGCI member companies: BP, Eni, Equinor, Shell and Total, with BP leading as operator. NZT Power and NZNS Storage will promote NZT on behalf of these five member companies.

NZT Power will be responsible for the construction, operation and decommissioning of the gas-fired power station together with the equipment required for the capture of its CO₂ emissions. NZNS Storage will be responsible for the construction, operation and decommissioning of the equipment required for the high-pressure compression of CO₂ from the power station and local industries, as well as the onshore CO₂ pipeline network. NZNS Storage will also be responsible for the offshore elements of NZT, comprising the pipeline that will transport the CO₂ to a suitable offshore geological storage site under the North Sea and associated infrastructure.

The Applicants are working closely with key regional stakeholders, including the South Tees Development Corporation (STDC), the Tees Valley Combined Authority, the North East of England Process Industrial Cluster and a number of multi-national companies on Teesside.



Why are we consulting on NZT?

Before construction can begin on NZT, we need to apply for and obtain various permissions, including a Development Consent Order (DCO) from the Secretary of State (SoS) for Business, Energy and Industrial Strategy under the Planning Act 2008.

Consultation is a key part of the DCO process and it is a statutory requirement of the Planning Act 2008 to consult people living within the vicinity of the project and to have regard to their views in preparing the application to be submitted to the SoS. The application submitted to the SoS must be accompanied by a consultation report detailing what has been done to consult the local community (and other stakeholders and interested persons) and how peoples' views have been taken into account.

We carried out our initial consultation on the onshore elements of NZT (our Stage 1 Consultation) in the autumn of 2019. This consultation is our final stage of consultation (our Stage 2 Consultation) and will run to 18th September 2020. We are planning to submit our application for a DCO to the SoS by the end of 2020.

Due to COVID-19 and the restrictions that are in place we are having to do some things differently, for example, we will not be holding face-to-face public exhibitions due to the need for social distancing. However, we will still be consulting the local community in a wide range of ways and are running the consultation for a period of approximately two and a half months to ensure people can have their say. The ways in which we will be consulting people are set out in the Statement of Community Consultation (SoCC), which accompanies this leaflet.

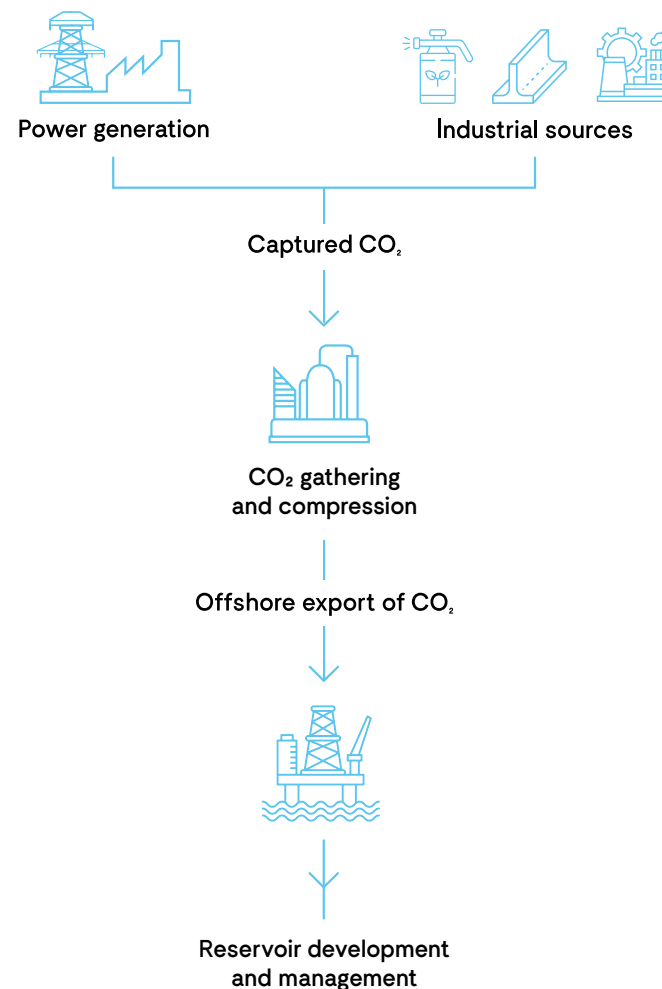


CCUS – What is it and why do we need it?

CCUS is a process that removes CO₂ from emissions at source, for example emissions from a power station or chemical manufacturing installation, and then compresses the CO₂ so that it can be safely transported to secure underground storage sites. It is then injected into layers of solid rock filled with interconnected pores where the CO₂ becomes trapped and locked in place, preventing it from being released into the atmosphere.

The technologies used in CCUS are proven and have been used safely across the world for many years. Storage sites are located several kilometres underground and are subject to stringent tests to ensure that they are geologically suitable. In the UK, it is expected that the storage sites will be located offshore, in areas such as the North Sea.

CCUS is one of a number of technologies that are crucial to reducing CO₂ emissions and combatting global warming. The UK Government has committed to achieving net zero in terms of greenhouse gas emissions by 2050. This is a legally binding target, and, as the Committee on Climate Change has stressed, CCUS is critical to achieving this. Without it, the target poses a real challenge to the future of UK industry and jobs, as CCUS is the only way to decarbonise many existing industries.

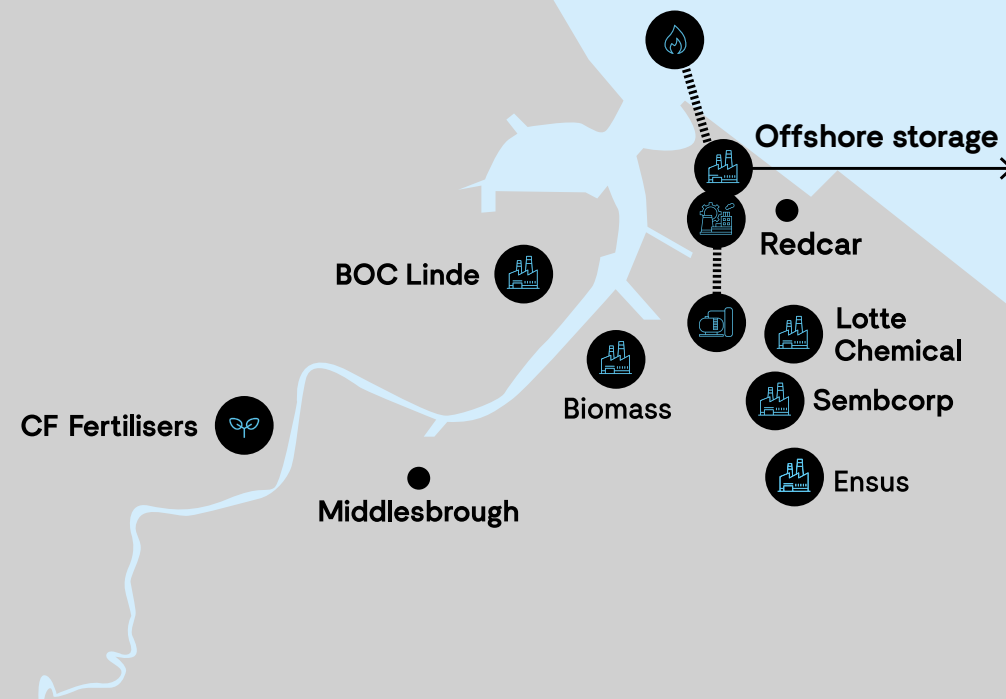


How will NZT work?

NZT will work by enabling a cluster of businesses on Teesside to capture CO₂ at source, then transport it via a common pipeline network to an offshore geological storage site under the North Sea. It will provide the potential for CO₂ to be captured from the proposed gas-fired power station as well as neighbouring facilities, including a biomass power station, hydrogen production facility and a range of other local industries.

NZT comprises both onshore and offshore elements, including:

- A high efficiency gas-fired power station with an abated capacity of up to 2.1 gigawatts output (gross), including carbon capture plant, that can flexibly deliver low carbon power locally and nationally
- Cooling water, gas and electricity connections for the gas-fired power station
- A CO₂ gathering network connecting to other facilities on Teesside, including local industries - industries capturing CO₂ from their own processes will have access to this network so that their CO₂ can be transported and stored
- A CO₂ gathering and compression station - this will receive the captured CO₂ from the power station and other facilities and compress the CO₂ to high pressure
- A CO₂ transport/export pipeline for the onward transport of the captured and compressed CO₂ to the offshore storage site
- A geologically secure offshore storage site under the North Sea where the CO₂ will be permanently stored - this will either be a depleted oil or gas field or a saline aquifer



The gas-fired power station and CO₂ gathering and compression station will be located on part of the former SSI steel works site in Redcar, land that is controlled by the STDC. The CO₂ transport/export pipeline will also start in this location before heading offshore. The power station connections and the CO₂ gathering network will involve land within both Redcar and Stockton-on-Tees, including crossings beneath the River Tees.

Our application for a DCO will encompass all the onshore elements of NZT (above mean low water springs) and the crossings beneath the Tees. The offshore elements of NZT (the continuation of the CO₂ transport/export pipeline and the storage site) will be subject to separate consent applications.

Why Teesside?

Teesside has long been a focus for industry, ranging from steelmaking to chemicals. Today some of the region's leading industrial businesses together generate £2.5 billion each year for the UK economy. However, as the UK transitions to a low carbon economy, and with the commitment to achieve net zero by 2050, local industry faces a fundamental challenge – to sustainably remove CO₂ from industrial emissions. CCUS is critical to this.

Teesside is an ideal location for NZT and was carefully selected after an extensive site selection process. Teesside industries account for 5.6% of industrial emissions in the UK. CCUS can therefore make a real difference on Teesside. With the existing concentration of industries located within a relatively compact area, captured CO₂ can be gathered and transported to an offshore storage site relatively easily. Teesside also benefits from proximity to the North Sea to access to some of the largest and most secure potential CO₂ storage sites anywhere in the world, deep under the seabed, with over 1,000 Mt of potential storage capacity, enough for many decades to come.

NZT will not only create jobs during its construction and the operation of the gas-fired power station but will also safeguard existing jobs by decarbonising local industries under increasing environmental pressure and help stimulate inward investment in new low carbon industries to the area.

Key facts



£450m

An extensive assessment of the Project's construction phase estimates an annual gross benefit of up to £450 million for the Teesside region.



5,500

NZT could support up to 4,500 direct jobs annually between 2024 - 2028 during construction, reaching a peak of 5,500 direct jobs in 2025.



>1000 Mt CO₂

Teesside's location offers access to storage sites in the North Sea with more than a gigaton of CO₂ storage capacity.



10Mt CO₂

NZT is being developed to store up to 10 Mt of CO₂ each year - the equivalent to the annual energy use of over 3 million homes.



5.6%

Teesside industries account for 5.6% of industrial emissions in the UK and it is home to five of the UK's top 25 CO₂ emitters.



7% Reduction

In the International Energy Association Development Scenario, CCUS accounts for 7% of the cumulative emissions reductions needed globally by 2040.

Project design development

As NZT is a first of its kind full chain CCUS project, its detailed design is yet to be finalised. Detailed design work is ongoing and will continue after the submission of the DCO application and up to the start of construction. Therefore, at this stage, early design concepts are presented to help the local community understand the works that are proposed.

Environmental impact assessment (EIA)

A comprehensive EIA is currently being prepared for the elements of NZT that will be the subject of the DCO application in order to evaluate the potential effects on environmental receptors such as people and ecology. The EIA will consider the effects that may occur during the construction and operation of NZT and will be used as part of the design process to minimise environmental effects through design where possible. The EIA work is being undertaken following the approaches and methods agreed with various stakeholders, including the Environment Agency, Natural England and the local authorities. As the detailed design of NZT has not yet been finalised, the EIA is being based on worst case assumptions; it is expected that these will be refined and reduced as the Project progresses.

The EIA will consider the potential effects of NZT on a number of environmental topic areas, including air quality, noise, ecology, landscape, traffic, marine ecology, flood risk, climate and heritage. While some of the work is still ongoing, a Preliminary Environmental Information (PEI) Report has been prepared detailing the work done to date and the conclusions identified for each environmental topic, as well as the work to be undertaken before the DCO application is submitted.

What are we consulting on?

Our Stage 1 Consultation in autumn 2019 introduced NZT to the local community and provided information on the broad locations being proposed for the gas-fired power station and the CO₂ gathering and compression station and the various route corridors for the water, gas and electricity connections and CO₂ gathering network. It also included the findings of the early environmental work on the Project.

Since autumn 2019 we have undertaken further technical and environmental work on NZT. The Stage 2 Consultation (this consultation) will therefore provide information on our more developed proposals, including:

- The decisions made about the locations, route corridors, design and layout of the onshore elements of NZT and how the route corridors are being narrowed as we move towards submission of the DCO application
- The potential effects of the construction and operation of NZT, including the duration of the construction programme
- The findings of the EIA work undertaken to date - presented in the form of a PEI Report
- The proposals for avoiding, minimising and/or mitigating any likely environmental effects of the Project

How can I find out **more?**

We will consult the local community and provide information on NZT using the following:

- Press and media releases
- Radio adverts and social media channels
- This 'Information Leaflet'
- Newspaper notices and posters
- The Project Website: www.netzeroteesside.co.uk - all the consultation materials will be uploaded to the Website
- A virtual consultation portal (hosted on the project website) replicating a public exhibition and through which people will be able to organise live chats with members of the Project Team
- A freephone service through which people can make an appointment to speak to a member of the Project Team about a specific issue or topic

In view of the COVID-19 restrictions it may not be possible to place hard copies of the consultation materials in local authority offices and libraries for inspection. We will however offer the free loan of hard copy sets of documents to people who do not have access to the internet. In addition, as an alternative, we will also offer the loan of tablets or digital readers (with the consultation materials uploaded to them) to people with no internet access.

All of the consultation materials will be available on the Project Website or to loan from the end of June 2020. The virtual consultation portal and freephone service will also be available from the end of June.

How can I **submit comments?**

Comments can be submitted in the following ways:

- Completing the attached Feedback Form and returning it to the Freepost address below
- Completing an online version of the Feedback Form available on the Project Website: www.netzeroteesside.co.uk
- By email: consultation@netzeroteesside.co.uk
- By post: **Freepost NET ZERO TEESSIDE PROJECT CONSULTATION**
- By telephone: Freephone 0800 211 8185 - lines will be open 10am to 4pm Monday to Friday from 30th June 2020

All comments must be submitted no later than **18th September 2020**.

The comments received to the consultation may be made public. However, no personal information will be published unless necessary. We will take reasonable care to comply with the requirements of the General Data Protection Regulation. It is important that you read the Privacy Notice that forms part of the accompanying Feedback Form together with our Privacy Policy at www.netzeroteesside.co.uk

Next steps

We will consider the comments received to the consultation and document how we have taken account of peoples' views within the Consultation Report that will form part of our DCO application. The Consultation Report will be made available on the Project Website once the application has been submitted. We are planning to submit our application by the end of 2020.

Thank you for taking the time to read this Leaflet.

