

# HUMBERZERO Newsletter



Aerial view of the VPI Immingham LLP Combined Heat and Power Plant and the Phillips 66 Limited Humber Refinery

## Consultation on new post-combustion carbon capture technology and infrastructure

This newsletter is part of Phillips 66 Limited and VPI Immingham LLP's public consultation on proposals that form part of Humber Zero, a set of large-scale decarbonisation projects with the potential to prevent up to 8 million tonnes of CO<sub>2</sub> from the Immingham industrial area entering the atmosphere each year by 2050, contributing to the government's national net zero target.



### What is net zero?

Net zero refers to achieving a balance between the amount of emissions produced and the amount prevented from entering the atmosphere. When the amount of emissions produced are cancelled out by the amount blocked, the UK will be a net-zero emitter. CO<sub>2</sub> is one of the main greenhouse gases that is damaging to the atmosphere, so reducing CO<sub>2</sub> emissions is a key component of reaching net zero.

We are consulting on the first phase of Humber Zero - **the introduction of new post-combustion carbon capture technology and infrastructure to existing facilities within the Phillips 66 Limited Humber Refinery and the VPI Immingham LLP Combined Heat and Power (CHP) Plant.** These proposals are a critical component of Humber Zero, and will contribute significantly to the overall CO<sub>2</sub> reduction figure. They are expected to collectively prevent up to 3.8 million tonnes of CO<sub>2</sub> from entering the atmosphere each year by 2028.

Your views are important to help us develop our proposals and better understand any potential impacts they may have on you. We'd like to hear what you think, so please read our consultation materials and share your ideas and any questions with us. Information on how you can provide your feedback is on the back of this newsletter.

## What is Humber Zero?

Our proposals will adapt existing industry, safeguard jobs and create opportunities in the lower carbon economy by retrofitting carbon capture and storage technology into some of the processes at the Phillips 66 Limited Humber Refinery and VPI Immingham CHP plant.

Post-combustion, the CO<sub>2</sub> emissions from some of the processes at both facilities (which are normally released to the atmosphere as a greenhouse gas) will be captured at the source and compressed. The CO<sub>2</sub> will then be transported off site via one of two pipelines (separate independent projects that are also under development by other companies, shown below) for storage under the North Sea.

In particular, Humber Zero will deliver post-combustion carbon capture plants:

- within the Phillips 66 Limited Humber Refinery for the Fluid Catalytic Cracker; and
- for two of the gas turbines and auxiliary boilers within the VPI Immingham CHP plant.

Each of the plants will have its own CO<sub>2</sub> compression facilities.

## Who are we?



### Phillips 66 Limited

Own and operate the Humber Refinery. The Humber Refinery is one of the most sophisticated in Europe; it is highly integrated, energy efficient and manufactures both fuels and specialist products. It is Europe's only supplier of graphite coke for electric vehicle batteries and consumer goods and is a UK leader in the production of lower carbon liquid fuels.



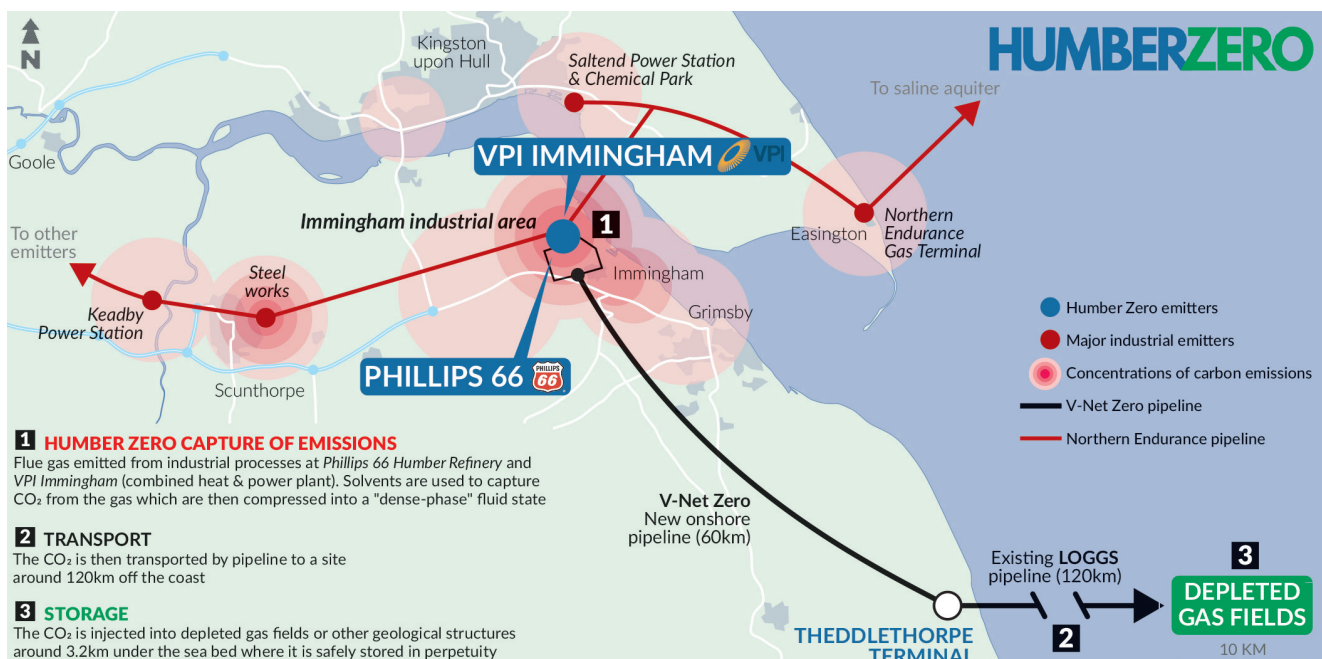
### VPI Immingham LLP

Own and operate the gas-fired CHP plant on Rosper Road. The plant operates 24/7 to provide the electricity and steam that is critical to the operation of the neighbouring refineries and also to the National Grid.



## What is carbon capture?

Carbon capture refers to capturing CO<sub>2</sub> emissions at source (i.e. before they enter the atmosphere) and compressing them ready for safe storage or export. Carbon capture is one of the government's tools for achieving its goal to reach net zero by 2050.



Location of the Phillips 66 Limited Humber Refinery and the VPI Immingham CHP plant, part of the Immingham industrial cluster, in relation to proposed transport and storage networks

# Benefits and impacts of Humber Zero

Our proposals will have significant environmental, economic, and social benefits for the Humber region and the UK as a whole. This will include preventing carbon emissions reaching the atmosphere, improving local green space, providing job and training opportunities for local people, as well as future-proofing current jobs and driving inward investment.



## Local context

- The Humber region produces many of the everyday products we take for granted in the UK, from construction materials to chemicals, food to fuel. The region generates 20% of UK's electricity and produces a third of the UK's fuel.
- Estimated emissions from Humber industries were 14.8 million tonnes of CO<sub>2</sub> in 2017, plus a further five million tonnes emitted from a number of power generators in the region.
- There are 55,000 jobs in the manufacturing sector in the region and 20% of the economy derives from energy intensive industry. The sector provides around 15% of local jobs and 23% of the gross value added to the local economy.



## Project statistics

- Prevention of up to 3.8 million tonnes of CO<sub>2</sub> from entering the atmosphere each year by 2028 – a significant proportion of the UK government's national target.
- Total creation of up to around 2,500 jobs during construction, up to around 200 permanent jobs and safeguarding of up to around 20,000 direct and indirect jobs in the Humber region.
- Total investment of £1.2 billion in the initial phase.



## Environmental impacts

We understand our responsibility to consider and minimise the impact our work has on the environment. To understand the existing environment around the site and to inform our proposals, we have undertaken surveys to support an environmental assessment for the scheme. This assessment will look at the likely significant effects of the development on the environment and help ensure that suitable measures to minimise them are included within the overall scheme.



## Construction management and safety

We will always aim to minimise any disruption during construction by coordinating with other projects planned in the area and communicating details with local residents, businesses and road users well in advance.

Phillips 66 Limited and VPI Immingham LLP consider the safety of workers and the public to be the top priority in the ongoing operation of the facilities and in the development of the Humber Zero project. We will rigorously manage safety throughout the construction phase and during operation.

## Planning applications

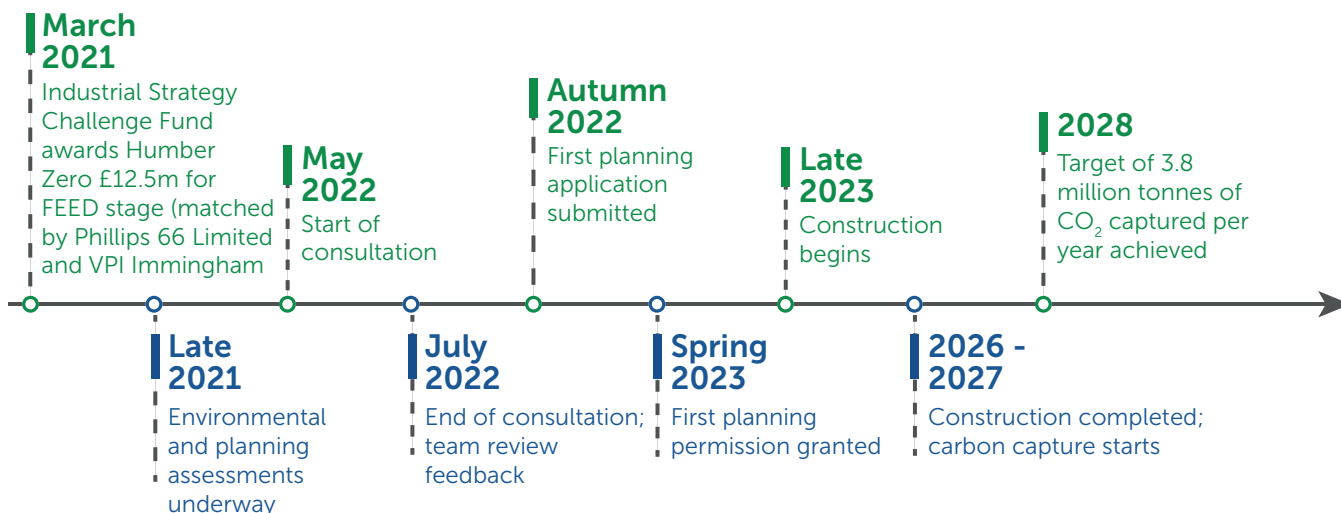
Phillips 66 Limited and VPI Immingham LLP will submit separate planning applications to the Local Planning Authority, North Lincolnshire Council, for the respective carbon capture plants and their associated works in Autumn 2022.

Once the planning applications are submitted, you will be able to read and comment on the proposals and supporting information on the Council's planning portal.

## Public consultation and next steps

### Project first phase timeline

The timeline below sets out our key project milestones. Please note that successful delivery of the project will depend on key funding decisions, as well as the necessary planning approvals.



### Public consultation events

We will be sharing more information about our proposals at online and in person events, summarised in the table below. The events will provide the opportunity to meet the project team, find out more information about the project, ask questions and provide feedback.

All information presented at the in-person events will be available to view in a virtual exhibition room at the following link: [humberzero.consultation.ai](https://www.humberzero.co.uk/humberzero.consultation.ai). The events will be held with appropriate health measures in place to make them as safe as possible for visitors and staff. We ask you to please be COVID aware

when attending the in-person events, and not to attend if you have any symptoms.

### Have your say

We encourage you to provide feedback on our proposals. You can respond to the consultation until **11.59pm on 7 July 2022**. You can do this using the channels below.



<https://www.humberzero.co.uk/humberzero-community-news/>



[consultation@humberzero.co.uk](mailto:consultation@humberzero.co.uk)



Freepost HUMBER ZERO CONSULTATION

Venue	Date	Time
Ashbourne Hotel, Vicarage Lane, North Killingholme, DN40 3JL	Wednesday 8 June	3pm - 6pm
Immingham Civic Centre, Pelham Road, DN40 1QF	Saturday 11 June	11.30am - 2.30pm
South Killingholme Community Centre, Moat Lane, South Killingholme, DN40 3EU	Thursday 16 June	11am - 4pm
Online - visit <a href="https://www.humberzero.co.uk/humberzero.consultation.ai">humberzero.consultation.ai</a>	Tuesday 21 June	10am - 11am
Online - visit <a href="https://www.humberzero.co.uk/humberzero.consultation.ai">humberzero.consultation.ai</a>	Thursday 23 June	10am - 11am