



# System Development Statement

MARCH 2026



**Construction has commenced on the UK's first CO<sub>2</sub> Transportation and Storage System.**

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# Use and interpretation of this document

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## Purpose of this document

This System Development Statement has been prepared and published in accordance with Standard Condition B2 of the Carbon Dioxide Transport and Storage Regulatory Investment (TRI) Licence issued to Net Zero North Sea Storage Limited on 9th December 2024.

The TRI License grants approval to NEP, via its registered operating company Net Zero North Sea Storage Limited, to develop maintain and operate the T&S (Transportation and Storage) Network in accordance with the Approved Project Development Plan (APDP).





**We will pioneer  
CO<sub>2</sub> Transportation &  
Storage, building the  
largest asset in the UK**

# SYMBOLS AND ABBREVIATIONS

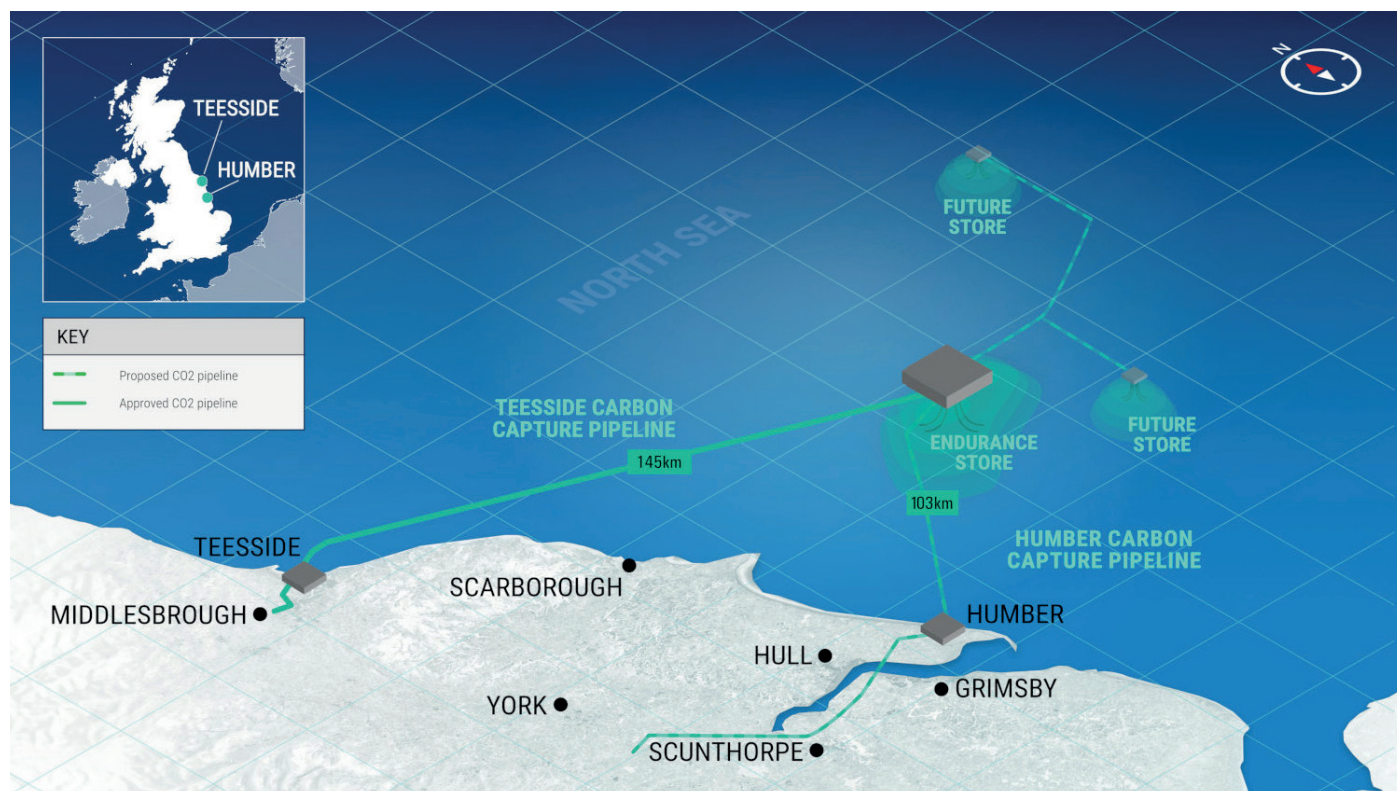
<b>AGI</b>	Above Ground Installation
<b>APDP</b>	Approved Project Development Plan
<b>BOC</b>	Teesside Hydrogen CO <sub>2</sub> Capture
<b>CCS</b>	Carbon Capture and Storage
<b>CS006</b>	The Boundary offered by NSTA in Carbon Dioxide Appraisal and Storage Licence CS006
<b>CS007</b>	The Boundary offered by NSTA in Carbon Dioxide Appraisal and Storage Licence CS007
<b>DCO</b>	Development Consent Order
<b>Devex</b>	Development Expenditure
<b>FEED</b>	Front-End Engineering Design
<b>H2T</b>	H2Teesside
<b>HCCP</b>	Humber Carbon Capture Pipeline, collectively made up of the Humber Onshore and Offshore Transportation Systems
<b>Mt</b>	Megatonnes of CO <sub>2</sub>
<b>MTPA</b>	Megatonnes of CO <sub>2</sub> per annum
<b>MTPAi</b>	Megatonnes of CO <sub>2</sub> per annum on an instantaneous basis
<b>NEP</b>	Northern Endurance Partnership
<b>NSTA</b>	North Sea Transition Authority
<b>NZT Power</b>	Net Zero Teesside Power
<b>ONC</b>	Obligated Network Capacity, being the network capacity that must be made available to the users on aggregate
<b>PCC</b>	Power Capture and Compression, being the power and capture plant and HP compression facilities located at the Teesworks Site
<b>T&amp;S</b>	Transportation and Storage
<b>TCCP</b>	Teesside Carbon Capture Pipeline, collectively made up of the Teesside Onshore and Offshore Transportation Systems
<b>TRI Licence</b>	Transportation and Storage Regulatory Investment Licence
<b>Xmas Tree</b>	Subsea Christmas Tree for Injection Wells

# ABOUT NORTHERN ENDURANCE PARTNERSHIP

The Northern Endurance Partnership (NEP) is developing onshore and offshore infrastructure needed to transport CO<sub>2</sub> from carbon capture projects across Teesside and the Humber – collectively known as the East Coast Cluster – to secure storage under the North Sea.

NEP has the potential to store up to 23MTPA via the Endurance saline aquifer store and adjacent expansion stores. The infrastructure is crucial to achieving net zero in the UK's most carbon intensive industrial regions.

Figure 1: East Coast Cluster System Map





## Our Purpose

Delivering economic growth through decarbonisation

## Our Mission

We safely and permanently store CO<sub>2</sub> from Teesside and the Humber to support the net zero journey and drive economic prosperity

## Our Vision

We will pioneer CO<sub>2</sub> Transportation & Storage, building the largest asset in the UK, inspiring others to follow and enabling a commercially sustainable market



## 1.1 Project Development Milestones

**OCT 2020**

NEP is formed as an unincorporated joint venture and submits bid for funding through UK Government's Industrial Decarbonisation Challenge.

**MAR 2021**

NEP, Net Zero Teesside and Zero Carbon Humber consortia all awarded funding from UK Government's Industrial Decarbonisation Challenge.

**OCT 2021**

East Coast Cluster selected in Track-1 of the UK Government's Cluster Sequencing Process.

**MAR 2023**

Initial Users of NEP's Teesside Transportation and Storage System selected by DESNZ under Phase-2 of the Cluster Sequencing Process.

**DEC 2023**

NEP and the UK Government agree 'Heads of Terms' for the CO<sub>2</sub> Transportation and Storage business model.

**JUNE 2024**

The NEP incorporated joint venture is formed.

**DEC 2024**

NEP and NZT Power announce financial close and the receipt of the UK's first TRI Licence and CO<sub>2</sub> Storage Permit.

**JUL 2025**

NEP is awarded a £147.5 million Devex allowance by Ofgem to progress critical appraisal activity for two expansion storage sites.

**DEC 2025**

NEP is awarded a £98.8 million Devex allowance by Ofgem to progress continued development activities for the Humber Carbon Capture Pipeline at pace.



By 4Q2025, together with NZT Power, major contractors working on the projects have awarded more than £1 billion in UK sub-contracts to over 200 UK companies.

## 1.2 Our progress on Teesside

NEP has now commenced construction on the Teesside Network and Endurance Storage Site, initially intended to store up to 4MTPA and with the capability to store up to 10MTPA in the future. Start-up of the network with Net Zero Teesside Power is expected from 2028.

In early 2026, DESNZ launched a selection process for new users of the Teesside network, with between 1-2MTPA of store capacity to be allocated, within the existing 4MTPA store limit. New users are anticipated to connect by end of 2032 and NEP is actively engaging with potential applicants.

## 1.3 Our progress in the Humber

NEP is progressing development work for the Humber Carbon Capture Pipeline - the proposed 17MTPA infrastructure system that will transport CO<sub>2</sub> from carbon capture projects in the Humber region to secure offshore storage under the North Sea. The infrastructure will enable a connection to carbon capture projects in the Humber selected by DESNZ through the future User Selection Processes.

NEP completed a statutory consultation for the onshore Humber Carbon Capture Pipeline in late 2025 as preparation for a Development Consent Order application submission in 2027.

Start-up of the North Bank of the system will be from 2032. Start-up of the South Bank will follow due to the time required to cross the Humber. The exact date will be dependent on the technology used in the crossing.

## 1.4 Delivering for the UK

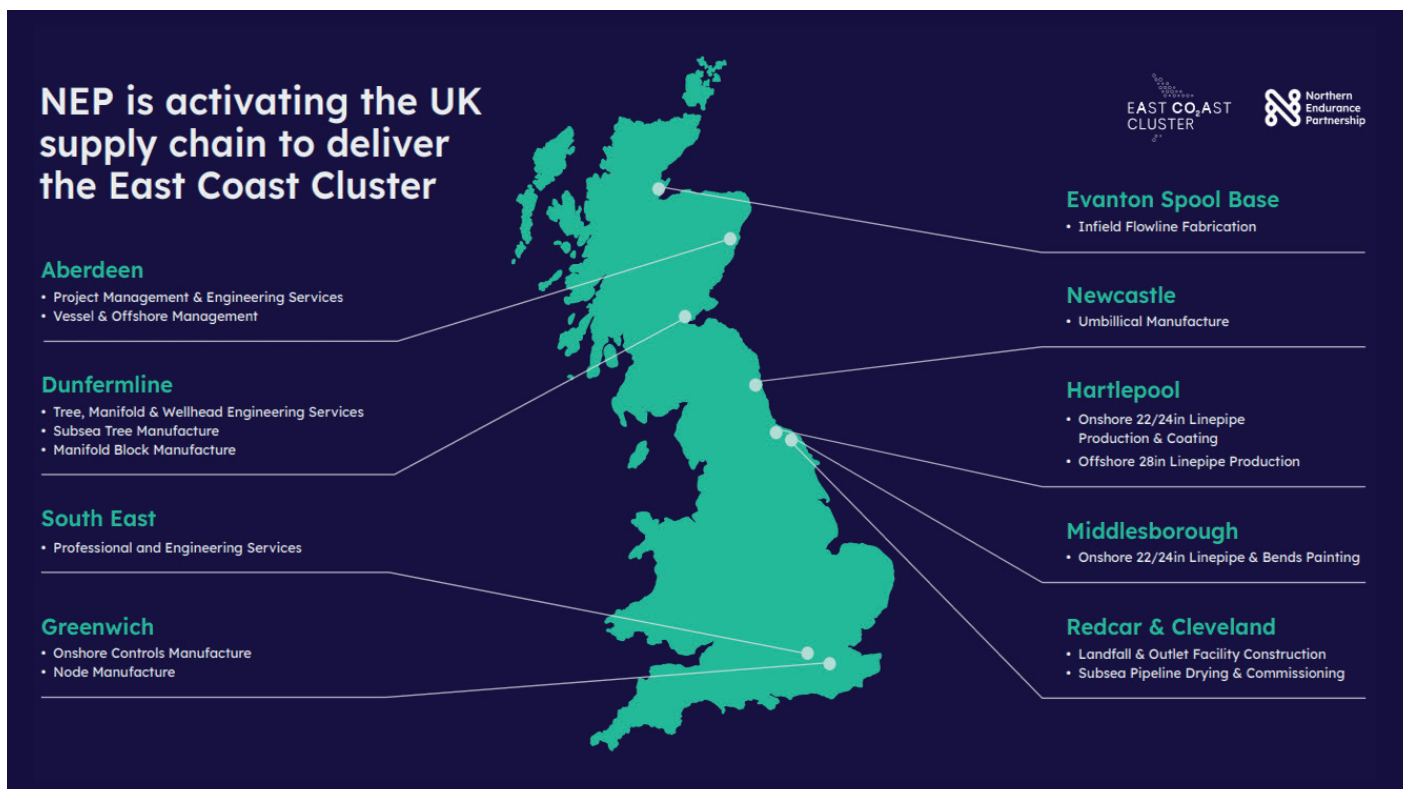
### Supply Chain

By 4Q2025, together with NZT Power, major contractors working on the projects have awarded more than £1 billion in UK sub-contracts to over 200 UK companies. The build of the network has achieved 50% UK supplier content, supporting domestic industry and capability, and the projects have created or supported around 3,000 jobs across the UK.

### Skills Development

NEP and NZT Power are collectively investing in local skills so people can access clean energy careers. Around £1 million is committed to regional programmes, with 175 young people starting college courses through partnerships with local institutions and the Tees Valley Combined Authority. Construction partners Technip Energies and Balfour Beatty have delivered more than 150 hours of outreach to over 1,000 students, supported targeted recruitment, and aligned training with local industry needs.

Figure 2: Northern Endurance Partnership UK Supply Chain Map (December 2025)



# SYSTEM DESCRIPTION

The construction and commissioning of the System is split into two phases in the APDP.

## Phase 1

Construction has commenced on the Teesside Carbon Capture Pipeline, which comprises three elements: the Teesside Onshore Transportation System, the Teesside Offshore Transportation System, and the Endurance Offshore Storage System. This was also to include the construction of spur lines and connections to BOC and H2T, carbon capture projects that had been in negotiation with DESNZ under the Cluster Sequencing Process. However, following formal notification from DESNZ of the withdrawal of BOC and H2T from this process, these spur lines and connections will no longer be constructed.

Following completion of construction, NEP expects to begin commissioning the following systems in 2028:

- The connection point to NZT Power
- The Teesside Offshore Transportation System, including the Teesside Compression System
- The Endurance Offshore Storage System

## Phase 2

The second phase was to commission the H2T and BOC spur lines, as well as the Teesside CO<sub>2</sub> Gathering Pipeline as this cannot be done with CO<sub>2</sub> from NZT Power alone. However, following formal notification from DESNZ of the withdrawal of BOC and H2T from the Cluster Sequencing Process, the commissioning of these spur lines and connections will not take place. The Teesside CO<sub>2</sub> Gathering Pipeline will be commissioned at a later date following connection of a new user(s) into the system, subject to the user(s) being selected by DESNZ.

## 2.1 Teesside Onshore Transportation System

The Teesside Onshore Transportation System connects industrial network users to the Teesside Compression System in the Teesworks site. This has several components:

- The CO<sub>2</sub> Gathering Network, which runs from an above-ground installation (AGI) close to BOC on the North Bank of the Tees to the Teesside Compression System. There is also a dedicated spur line from the BOC site to the AGI
- A dedicated spur line from an AGI in the H2T plot to the Teesside Compression System

As covered above, the scope defined in Figure 3 and Table 1 may be subject to change following the withdrawal of BOC and H2T from the Cluster Sequencing Process and following the outcome of the ongoing ECC Teesside User Selection Process.

Figure 3 provides an overview of the Teesside Onshore Transportation System.

Table 1 provides further detail and capacities from each of these segments.

**Figure 3:** Teesside Onshore Transportation System map



**Table 1:** Teesside Onshore Transportation System overview and capacities

Network Segment/Item	Description	Design Capacity
<b>Teesside Onshore Transportation System</b>		
CO <sub>2</sub> Gathering Pipeline	22" pipeline connecting an above-ground installation (AGI) (C1) near BOC on the North Bank of the Tees to the Teesside Compression System	3.80 MTPAi
H2T Spur line	22" pipeline from an AGI (C4) within the H2T plot to the Teesside Compression System	3.60 MTPAi (to allow for future expansion of H2T and/or connection of other users on the Teesworks site)
BOC Spur Line	8" pipeline connecting the BOC boundary to the AGI (C1) near BOC.	0.40 MTPAi

The network will be constructed to allow for potential future expansion in the Teesside area. This includes:

- Tie-ins for two 20" CO<sub>2</sub> pipelines at the Teesside Compression System, which could serve additional users on the South bank of the Tees
- The AGI (C1) close to BOC could allow for additional expansion of the CO<sub>2</sub> Gathering Network on the North Bank of the Tees beyond the initial route
- The AGI (C2) in the CO<sub>2</sub> Gathering Pipeline on the North Bank of the Tees could allow for the connection of an additional spur line connecting additional users from the Seal Sands area
- The AGI (C4) in the H2T plot could allow for additional users in the Teesworks site to connect to the H2T spur line

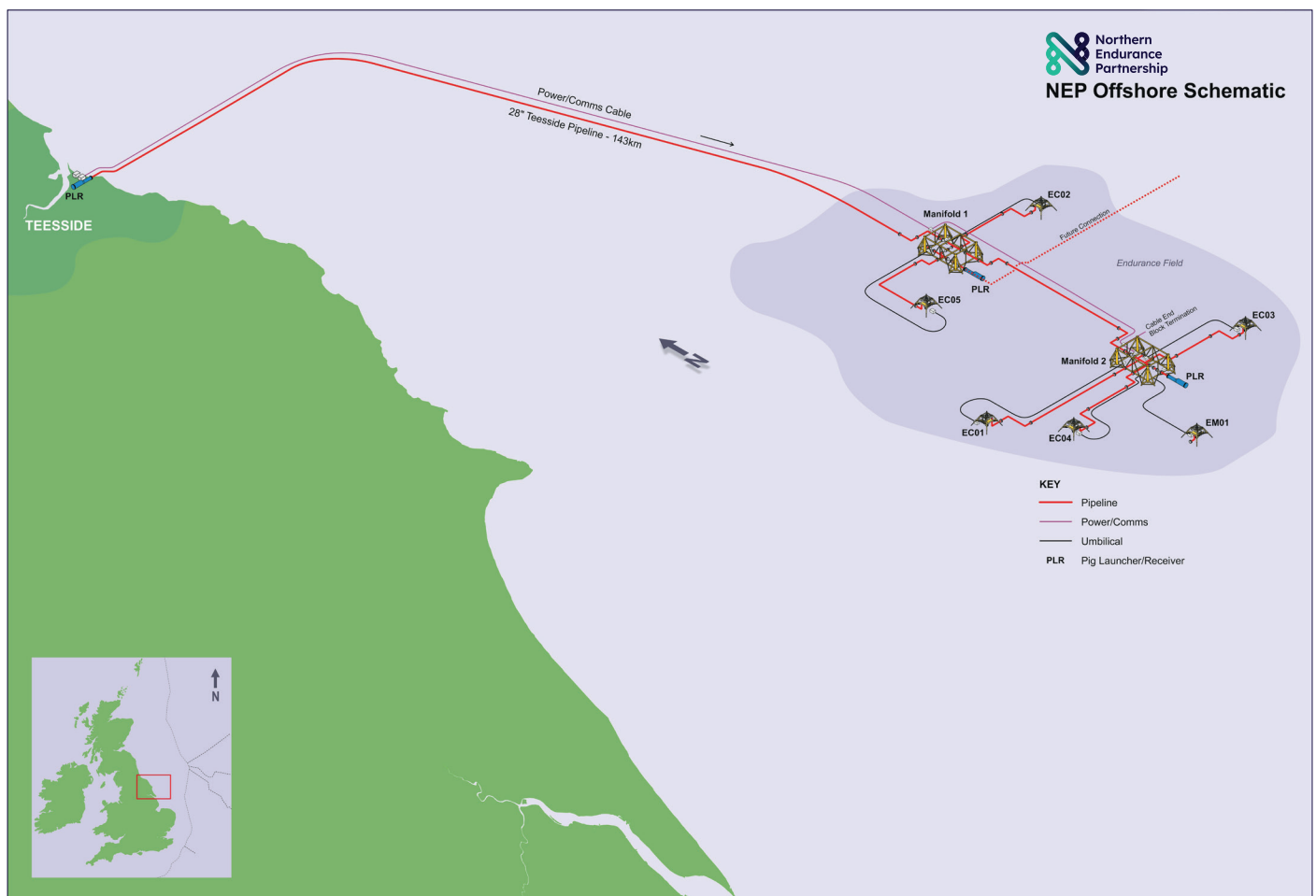
## 2.2 Teesside Offshore Transportation System

The Teesside Offshore Transportation System consists of both the Teesside Compression System and the Teesside Offshore Pipeline infrastructure. The offshore pipeline is 145km, from the Teesside Compression System to the Endurance Offshore Storage System.

The Teesside Compression System will be co-located and constructed along with NZT Power on the Power Capture and Compression (PCC) plot on the Teesworks site, as shown on Figure 3.

An overview of the Teesside Offshore Transportation System, along with the Endurance Offshore Storage System, can be seen in Figure 4. Further details and system capacities are shown in Table 2.

**Figure 4:** Offshore Transportation and Endurance Storage System schematic





The offshore pipeline is 145km, from the Teesside Compression system to the Endurance Offshore Storage System.

**Table 2:** Teesside Offshore Transportation System overview and capacities

Network Segment/Item	Description	Design Capacity
<b>Teesside Offshore Transportation and Storage System</b>		
Teesside Compression System	3 x 2Mtpai high-pressure compressors in an N+1 arrangement	4.00 MTPAi
Teesside Offshore Pipeline Infrastructure	28" pipeline connecting the Teesside Compression System to the Endurance Offshore Storage System	10.00 MTPAi

Pre-investment will be made in the Teesside Compression System so that it can be expanded later to 10MTPAi in an N+1 configuration to allow for potential future network expansion.

## 2.3 Endurance Offshore Storage System

The Endurance Offshore Storage System consists of the subsea infrastructure needed to connect the Teesside Offshore Pipeline System to the Endurance Store, including Manifolds, flowlines, injection and monitoring wells, as well as supporting equipment. An overview of the Endurance Offshore Storage System can be seen in Figure 4. Table 3 provides a detailed description of the key components.

**Table 3:** Endurance Offshore Storage System Overview

Network Segment/ Item	Description
<b>Endurance Offshore Storage System</b>	
Manifold 1	Manifold combining flows from the Teesside Offshore Transportation and Storage System and a potential future Humber Offshore Transportation System. Contains slots to be used for: <ul style="list-style-type: none"> <li>- 2x injection wells</li> <li>- 28" flowline to connect to Manifold 2</li> <li>- Pig receiver or potential future stores</li> </ul>
Manifold 2	Additional manifold containing slots to be used for: <ul style="list-style-type: none"> <li>- 3x injection wells</li> <li>- 1x monitoring well</li> <li>- 1x spare injection well slot</li> <li>- Pig receiver, until moved to make way for a connection to future stores</li> </ul>
Infield Flowlines	5x 8" infield flowlines from the manifolds to the injection Xmas trees.

The system is designed to allow for potential additional expansion through the spare slots in Manifolds 1 and 2 to allow connection to potential future stores, and for an additional potential injection well from the spare slot in Manifold 2.

# SYSTEM USAGE AND CAPACITY

## 3.1 Obligated Network Capacity

The Obligated Network Capacity (ONC) is the network capacity that must be made available to the users on aggregate. This is expressed in terms of:

- Maximum instantaneous flow
- Maximum annual cumulative flow
- Minimum instantaneous flow
- Overall store capacity

**Table 4:** Breakdown of obligated network capacity

Component of Obligated Network Capacity	Value
Maximum Instantaneous Flow Rate	4.21 MTPAi
Maximum Annual Cumulative Flow	4.00 Mt
Minimum Instantaneous Flow Rate	0.2 MTPAi
Overall Store Capacity	100 Mt

The Maximum Instantaneous Flow Rate component of the ONC may also be subject to review following the withdrawal of H2T and BOC from the Cluster Sequencing Process and will be updated accordingly following formal Change in Scope.

## 3.2 Initial users

As shown below in Table 5, the Initial User of the network is NZT Power. It is anticipated that further users will be selected to connect to NEP following the ongoing ECC Teesside User Selection Process led by DESNZ.

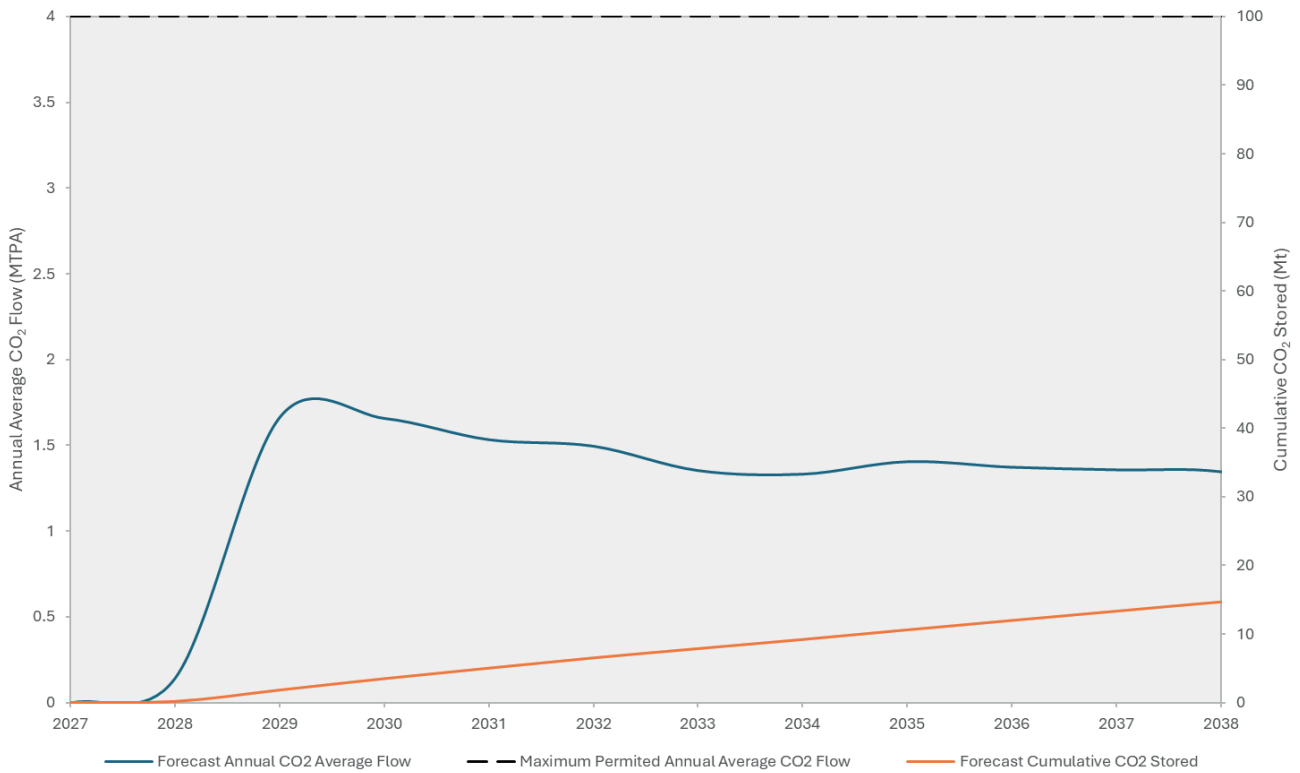
**Table 5:** Details of initial users

Planned Initial User	(Expected) Registered Capacity (tph)	Commissioning Phase	Connection Location
Net Zero Teesside Power (“NZT Power”)	2.55	1	Teesworks Site

### 3.3 Network demand forecast

An estimate of the total demand from the initial network users, for the first 10 years of operation, is provided in Figure 5.

Figure 5: Network demand forecast



# DEVELOPMENT AND EXPANSION

NEP will carry out development activities to facilitate expansion of the network. These activities relate to:

- The Humber Carbon Capture Pipeline (HCCP)
- Expansion storage systems CS006 and CS007

Finalisation of the expansion scope will be contingent on the outcome of expansion store appraisal-well analysis and will be subject to an additional investment decision.

The users who will form part of the expansion scope have not yet been selected by the Government under the Cluster Sequencing Process. Any changes to the network required to accommodate additional selected users will require a scope change approval for the APDP.



## 4.1 Humber Carbon Capture Pipeline

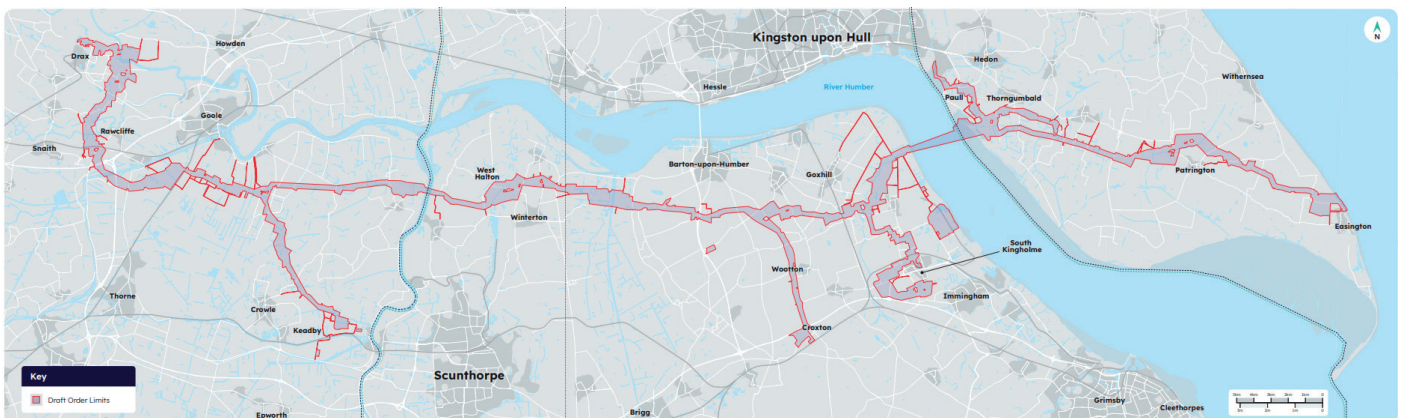
The Humber Carbon Capture Pipeline (HCCP) is the collective name for both the Humber Onshore and Humber Offshore Transportation Systems. This pipeline is intended to connect selected industrial users in the Humber to the Endurance and expansion stores, via a pumping station located at Easington. Development activities have been carried out at pace, with pre-FEED having been completed and a public statutory consultation for the Humber Onshore Transportation System having been carried out in December 2025 to support the planned Development Consent Order (DCO) application<sup>1</sup>.

Development activities under the APDP are divided amongst several Tranches for both the Humber Carbon Capture Pipeline and expansion stores. NEP recently announced a successful determination for Tranche 2<sup>2</sup> for the Humber Carbon Capture Pipeline. This grants a Devex allowance to complete the following activities:

- Continued preparation for and submission of a DCO application
- A trial Horizontal Directional Drilling (HDD) activity to determine the feasibility of crossing the Humber using HDD, with the potential to lead to significant cost savings, reduce construction time and reduce environmental impact, compared to tunnelling under the Humber
- Collecting essential ground survey data for the onshore pipeline
- Development of scope, cost and schedule for Tranche 3, which will focus on FEED and EPC contracting ahead of FID for the project

Figure 6 provides an overview of the proposed Humber Onshore Transportation System routing based on the proposed pipeline corridor as part of the preparation for the Development Consent Order (DCO).

**Figure 6:** Map of proposed Humber Onshore Transportation System route, as defined by the DCO statutory red line boundary



1. <https://nephccp.co.uk/>

2. Northern Endurance Partnership Secures Ofgem Approval to Advance Humber CCS Development



We have commenced appraisal drilling on Storage System CS006.

## 4.2 Expansion Storage Systems CS006 and CS007

Additional storage capacity is potentially available to connect additional users to the network. NEP has been awarded carbon storage licenses for the CS006 and CS007 Storage Systems, adjacent to Endurance.

NEP also announced a successful determination for Tranche 2 for CS006/CS007 development activities in July 2025<sup>3</sup>. This granted a Devex allowance for the following:

- Conducting seismic surveys (*completed in 2025*)
- Drilling appraisals wells (*in progress for completion in 2026*)
- Running testing programmes

These will inform activities under future development tranches and will include activities such as legacy well remediation works, detailed design, and the permitting and licencing required to build confidence in the storage system capacity.

The outcome of the appraisal activities will dictate the potential expansion capacity and scope.

The CS006 storage system is expected to include:

- The BC 40 and BC 39 Storage Sites
- Four injection wells
- A pipeline connecting CS006 to the Endurance Storage System

The CS007 storage system is expected to include:

- The BC 37 and BC 36 Storage Sites
- Three injection wells

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3. Net Zero North Sea Storage Limited – Second Tranche of CS006/CS007 Development Activities  
Ongoing Devex Final Determination

# SYSTEM MODIFICATION PLANS

The full impact to network scope of the withdrawal of H2T and BOC from the Cluster Sequencing Process, including the construction and commissioning of spur lines, is currently being assessed and any change to the APDP will be made in accordance with a formal Change in Scope.

It is also anticipated that the system will require future modification to accommodate new users following the ongoing ECC Teesside User Selection Process being led by DESNZ, subject to a formal Change in Scope.

# SYSTEM REMEDIATION PLANS

There is currently no need for remediation of the system, hence there are currently no plans.

# DECOMMISSIONING PLANS

As required under Carbon Dioxide Transport and Storage Licence Standard Conditions C2 and D2, 18 months prior to the Commercial Operations Date, Net Zero North Sea Storage Limited will submit information relating to decommissioning to the regulator, including:

- Onshore decommissioning plans
- Estimated decommissioning fund costs for onshore and offshore
- Proposed structure and investment strategy for the decommissioning fund

Following approval by the regulator, Net Zero North Sea Storage Limited will calculate the Onshore Decommissioning Fund Allowance and Offshore Decommissioning Fund Allowance for each charging year. Net Zero North Sea Storage Limited will commence monthly payments into these funds in line with the Decommissioning Fund Allowances after the Commercial Operations Date.

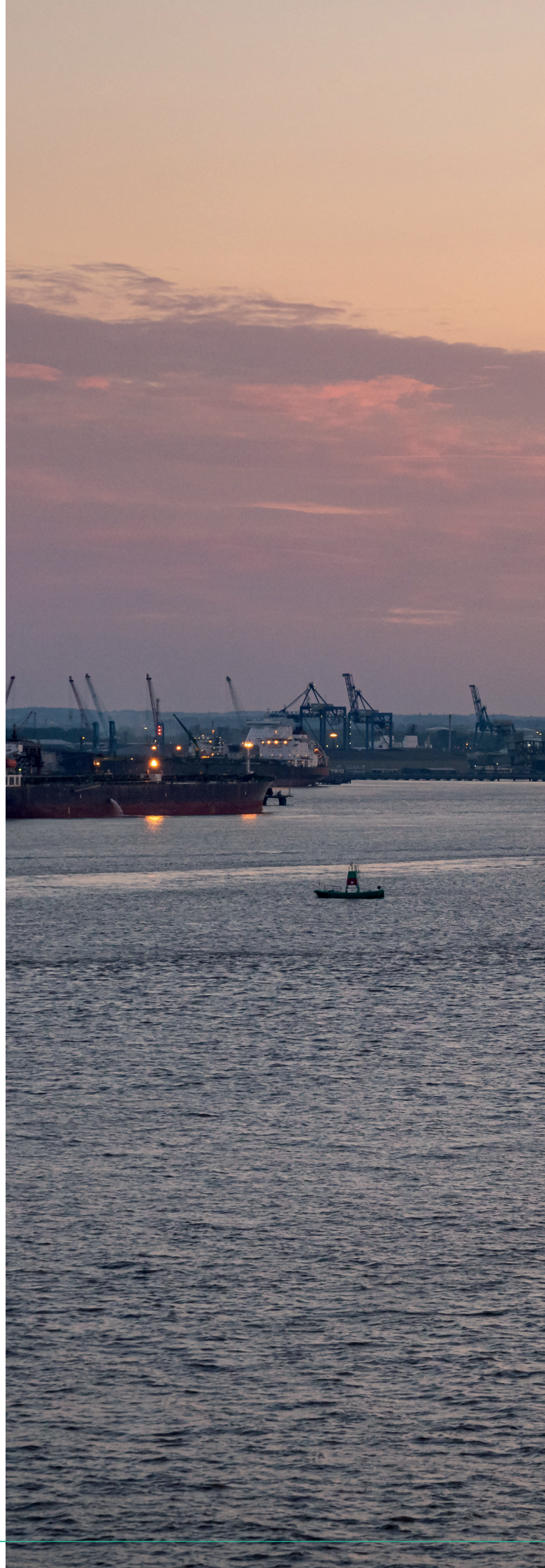
# Enquiries and connection applications

Prospective network users seeking to apply for network capacity and existing users seeking to apply for additional network capacity must first make that application through the Government-led Cluster Sequencing Process.

Following selection under this process, applicants are then invited to enter the connection process under the CCS Network Code by completing and submitting a Connection Application. A template will be provided on the Network portal.

Please send any queries relating to connections and any completed Connection Applications to [enquiries@northernendurancepartnership.co.uk](mailto:enquiries@northernendurancepartnership.co.uk).

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**Construction partners  
Technip Energies and  
Balfour Beatty have  
delivered more than 150  
hours of outreach to  
over 1,000 students**



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