Net Zero Teesside Project

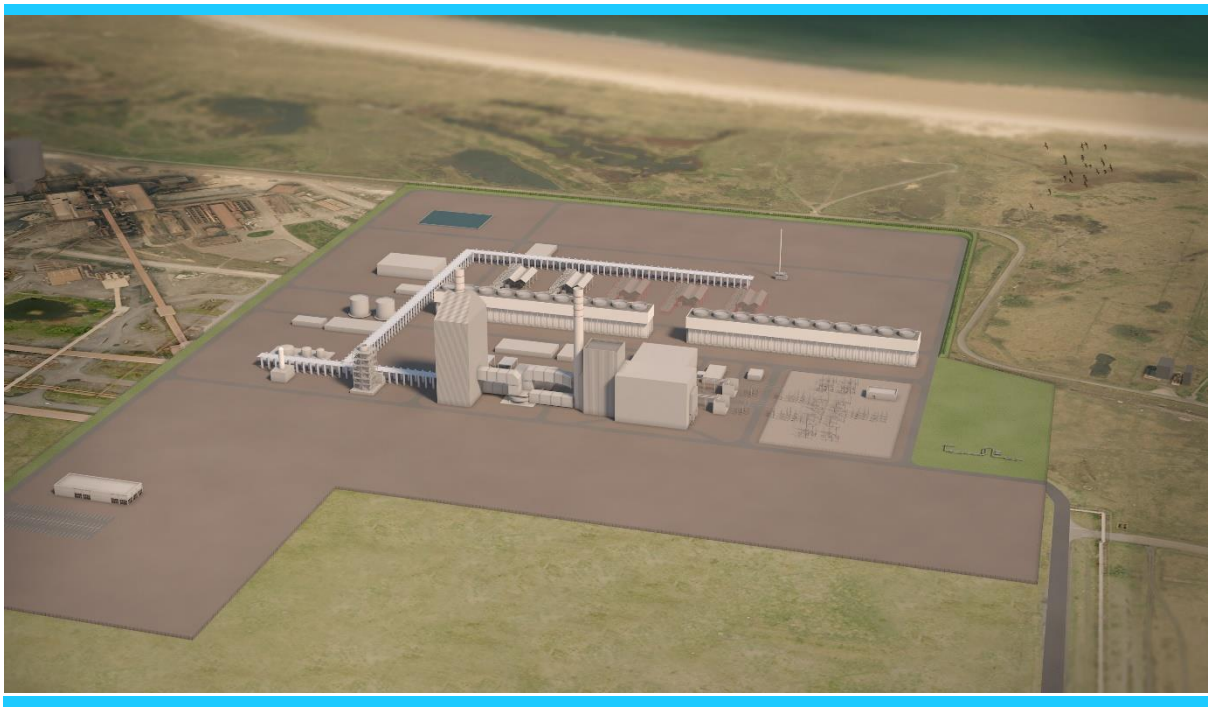
Planning Inspectorate Reference: EN010103

Land at and in the vicinity of the former Redcar Steel Works site, Redcar and in Stockton-on-Tees, Teesside

The Net Zero Teesside Order

Document Reference: 9.30 ISH4 Action 9 Contaminated Land Timeline

Planning Act 2008



Applicants: Net Zero Teesside Power Limited (NZT Power Ltd) & Net Zero North Sea Storage Limited (NZNS Storage Ltd)

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GLOSSARY

Abbreviation	Description
BEIS	The Department for Business, Energy and Industrial Strategy
CCGT	Combined Cycle Gas Turbine
CCUS	Carbon Capture, Utilisation and Storage
CO_2	Carbon dioxide
CPO	Compulsory Purchase Order
DCO	Development Consent Order
DPA	Dispatchable Power Agreement
dDCO	Draft Development Consent Order
EIA	Environmental Impact Assessment
ExA	Examining Authority
FEED	Front end engineering and design
Flowlines	Pipelines that connect a single wellhead to a manifold or process equipment. In a larger well field, multiple flowlines may connect individual wells to a manifold.
GHG	Greenhouse Gas
HDD	Horizontal Directional Drilling
HoT	Heads of Terms
IEMA	Institute of Environmental Management & Assessment
kV	Kilovolts
LOF	Life of Operation Forecast
LoO	Life of Operations
Mt	Million tonnes
NSIP	Nationally Significant Infrastructure Project
NEP	Northern Endurance Partnership
NZT	The Net Zero Teesside Project
NZT Power	Net Zero Teesside Power Limited
NZNS Storage	Net Zero North Sea Storage Limited

PA 2008	Planning Act 2008
PCC	Power Capture and Compressor Site
P&C	Power & Consumption Plant
PDA-	Procedural Deadline A
PINS	Planning Inspectorate
RCBC	Redcar and Cleveland Borough Council
RR	Relevant Representation
SBC	Stockton Borough Council
SEL	Sound Exposure Level
SPA	Special Protection Areas
SoCG	Statement of Common Ground
SoS	Secretary of State
STDC	South Tees Development Corporation
T&S	Transport and Storage
WSI	Written Scheme of Investigation
ZCH	Zero Carbon Humber

CONTENTS

1.0 INTRODUCTION

1.1 Overview

1.1.1 This document (Document Ref. 9.30) contains a response to Action Point 9 arising from Issue Specific Hearing (ISH) 4, submitted as part of the Examining Authority's First Written Question (ExQ1) [PD-012] and has been prepared on behalf of Net Zero Teesside Power Limited and Net Zero North Sea Storage Limited (the 'Applicants'). It relates to the application (the 'Application') for a Development Consent Order (a 'DCO'), that has been submitted to the Secretary of State (the 'SoS') for Business, Energy, and Industrial Strategy ('BEIS'), under Section 37 of 'The Planning Act 2008' (the 'PA 2008') for the Net Zero Teesside Project (hereafter referred to in this document as the 'Proposed NZT Development').

1.1.2 The Application was submitted to the SoS on 19 July 2021 and was accepted for Examination on 16 August 2021. A change request made by the Applicants in respect of the Application was accepted into the Examination by the Examining Authority on 6 May 2022.

1.2 Description of the Proposed Development

1.2.1 The Proposed Development will work by capturing CO_2 from a new the gas-fired power station in addition to a cluster of local industries on Teesside and transporting it via a CO_2 transport pipeline to the Endurance saline aquifer under the North Sea. The Proposed Development will initially capture and transport up to 4Mt of CO_2 per annum, although the CO_2 transport pipeline has the capacity to accommodate up to 10Mt of CO_2 per annum thereby allowing for future expansion.

1.2.2 The Proposed Development comprises the following elements:

- **Work Number ('Work No.') 1** – a Combined Cycle Gas Turbine electricity generating station with an electrical output of up to 860 megawatts and post-combustion carbon capture plant (the **'Low Carbon Electricity Generating Station'**);
- **Work No. 2** – a natural gas supply connection and Above Ground Installations ('AGIs') (the **'Gas Connection Corridor'**);
- **Work No. 3** – an electricity grid connection (the **'Electrical Connection'**);
- **Work No. 4** – water supply connections (the **'Water Supply Connection Corridor'**);
- **Work No. 5** – waste water disposal connections (the **'Water Discharge Connection Corridor'**);
- **Work No. 6** – a CO_2 gathering network (including connections under the tidal River Tees) to collect and transport the captured CO_2 from industrial emitters (the industrial emitters using the gathering network will be responsible for consenting their own carbon capture plant and connections to the gathering network) (the **'CO_2 Gathering Network Corridor'**);

- **Work No. 7** – a high-pressure CO_2 compressor station to receive and compress the captured CO_2 from the Low Carbon Electricity Generating Station and the CO_2 Gathering Network before it is transported offshore (the **'HP Compressor Station'**);
- **Work No. 8** – a dense phase CO_2 export pipeline for the onward transport of the captured and compressed CO_2 to the Endurance saline aquifer under the North Sea (the **'CO_2 Export Pipeline'**);
- **Work No. 9** – temporary construction and laydown areas, including contractor compounds, construction staff welfare and vehicle parking for use during the construction phase of the Proposed Development (the **'Laydown Areas'**); and
- **Work No. 10** – access and highway improvement works (the **'Access and Highway Works'**).

1.2.3 The electricity generating station, its post-combustion carbon capture plant and the CO_2 compressor station will be located on part of the South Tees Development Corporation (STDC) Teesworks area (on part of the former Redcar Steel Works Site). The CO_2 export pipeline will also start in this location before heading offshore. The generating station connections and the CO_2 gathering network will require corridors of land within the administrative areas of both Redcar and Cleveland and Stockton-on-Tees Borough Councils, including crossings beneath the River Tees.

1.3 The Purpose and Structure of this document

1.3.1 The purpose of this document is to provide a response to the Action 9 from ISH 4 which asks:

"Provide a timeline for the commencement of the authorised development in terms of investigation of land contamination and groundwater".

2.0 ISH4 ACTION POINT 9

2.1 Overview

Heading 3

2.1.1 Figure 1 below shows the phases of the proposed NZT development from enabling works, through construction, operations and decommissioning, together with the phases of ground investigation, monitoring and reporting over the lifetime of the plant.

2.1.2 A supplementary ground investigation is currently underway. The scope of this is being updated to include acquiring the following information requested by the EA in its Deadline 5 submission.

- Chemical "fingerprinting" of slag deposits to identify CoCs by GC-MS screening and lab analysis of identified contaminants.
- Testing of shallow water samples for slag sourced leachable metals; and
- On-going groundwater monitoring to include assessment of tidal influence of groundwater level in superficial deposits and slag in made ground – including installation of additional monitoring boreholes if necessary - to ensure that all key groundwater bodies in made ground, tidal flat deposits and permeable horizons in Mercia Mudstone are adequately monitored and assessed.

2.1.3 Following completion of the ground investigation a Ground Investigation Report will be produced and the Hydrogeological Impact Assessment updated. A validation ground investigation will also be undertaken during and after remedial works to demonstrate that the site has been remediated in accordance with the agreed strategy.

2.1.4 Monitoring of groundwater in made ground, tidal flat deposits and Mercia Mudstone will commence during the ground investigation and continue throughout the lifetime of the development. This would initially be in support of the remediation of the proposed PCC site and then during construction. Monitoring boreholes will be maintained and, if necessary, replaced, with abandoned boreholes sealed to an protocol agreed with the Environment Agency to prevent contamination of groundwater bodies. Following commissioning of the plant, groundwater monitoring will continue with regular compliance reporting under the Environmental Permitting regime.

2.1.5 A final ground investigation will be undertaken at the end of the life of the plant. A permit surrender Site Condition Report will then be prepared to demonstrate that the Permit can be surrendered.

Figure 1: Timeline for Investigation of Land Contamination