

# 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

Notification of Proposed Changes to the Net Zero Teesside DCO Application

The 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	
AGI	Above-Ground Installation	
CATS	Central Area Transmission System	
CEMP	Construction Environmental Management Plan	
CO <sub>2</sub>	Carbon Dioxide	
DCLG	Department for Communities and Local	
DCLG	Government	
DCO	Development Consent Order	
EIA	Environmental Impact Assessment	
ExA	Examining Authority	
FEED	Front-End Engineering Design	
HDD	Horizontal Directional Drilling	
HGV	Heavy Goods Vehicle	
HRA	Habitat Regulations Assessment	
NGG	National Gas Grid	
NWL	Northumbrian Water Ltd.	
NZT	Net Zero Teesside	
PA	Planning Act	
PCC	Power Capture and Compression	
PINS	Planning Inspectorate	
SPA	Special Protection Area	
STDC	South Tees Development Corporation	
TGPP	Teesside Gas Processing Plant	
WwTP	Wastewater Treatment Plant	



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# 1.0 INTRODUCTION

- 1.1 Overview
- 1.1.1 The Net Zero Teesside (the 'Project') Development Consent Order Application ('DCO Application') was submitted by the Applicants, Net Zero Teesside Power Limited and Net Zero North Sea Storage, to the Secretary of State on 19 July 2021. The DCO Application was accepted for examination on 16 August 2021.
- 1.1.2 The Project is a technically challenging, and complex 'first-of-a-kind' development. It is a critical part of a Track 1 carbon capture and storage cluster project, which the UK Government has identified as being important for the decarbonisation of the power and industrial sectors both in Teesside and nationally. The Project is effectively two projects in one an industrial decarbonisation project combined with a low-carbon dispatchable power station, located in an area where there are a large number of industrial and other developments (both existing and proposed).
- 1.1.3 Due to the Project's nature and scale, the extent of land interests within the proposed Order Limits and the potential to re-use existing infrastructure to reduce its construction effects, the DCO Application submitted in July 2021 necessarily included a degree of optionality. The Applicants have previously explained to the Planning Inspectorate (PINS) the need to retain a degree of optionality within the Application, but have also been clear that their aim would be to reduce that optionality, if possible, in advance of the Examination as the project design is progressed. The options included in the DCO Application were consulted upon and assessed as part of the environmental impact assessment (EIA) for the Project.
- 1.1.4 Since submission of the Application, the Applicants have continued to engage with Interested Parties with a view to addressing their comments and agreeing common ground, while also continuing with detailed project development. This has included progressing further work on the optionality around certain elements of the Project, notably the connections corridors. This work has identified a number of changes to the Project. The changes relate primarily to the optionality included in the DCO Application (particularly around the connection corridors for the Project) and a reduction in land take (or a reduction in the powers sought over land). In addition, there are other minor changes or updates to the Project.
- 1.1.5 The proposed changes are not considered, individually or cumulatively, to lead to the Project being different in nature or substance to that which was originally applied for in July 2021. The Project would remain a full chain Carbon Capture, Usage and Storage project, comprising a number of elements, including a new gas-fired electricity generating station (with



an electrical output of up to 860 megawatts) with post-combustion carbon capture plant; gas, electricity and water connections (for the electricity generating station); a  $CO_2$  pipeline network for collecting  $CO_2$  from a cluster of local industries on Teesside; a high-pressure  $CO_2$  compressor station; and an onshore  $CO_2$  pipeline.

- 1.1.6 The changes proposed to be sought to the DCO Application reflect design evolution or refinement of the Project, seek to respond to comments received from Interested Parties, deliver improvements to the Project, reducing optionality, land take and complexity, therefore reducing its overall impacts.
- 1.1.7 The Applicants consider that the proposed changes to the Application, taken together, may be material. Therefore, the Applicants are notifying the Examining Authority (ExA) of their intention to formally request a change to the DCO Application and seek advice from the ExA on the procedural implications. The formal change request will be submitted to the ExA by 28 April 2022. The formal change request will be accompanied by information on the proposed changes and by updated application documents and additional information as required.
- 1.1.8 As the proposed changes may be considered to be material by the ExA, the Applicants intend to carry out non-statutory consultation on the changes prior to making the formal change request. The consultation would be undertaken in accordance with PINS Advice Note 16<sup>1</sup>, as described more fully later in this document. The views of the ExA are sought on the need, scope, and nature of the proposed consultation exercise.
- 1.1.9 Separate to assessing the potential changes to the environmental effects associated with the changes to the Project, the Applicants have identified that it may be beneficial for certain ecological surveys to be updated and are undertaking some confirmatory surveys shortly, in order to ensure that the environmental effects remain as reported in the Environmental Statement (which is expected). Once completed (which will be after the formal change request) these would be provided to Natural England and other relevant Interested Parties directly, and would also be submitted to the ExA. For the avoidance of doubt, this is entirely unrelated to the proposed changes and would be carried out regardless of the Applicants making the change request. As this work is not related to the changes, and will be completed following the formal change

<sup>&</sup>lt;sup>1</sup> Advice Note 16: How to request a change which may be material, Planning Inspectorate, March 2018



request, it will not form part of the non-statutory consultation on the changes to the Project.

#### 1.2 Structure of this document

- 1.2.1 The remainder of this document is structured as follows:
  - Section 2: Proposed Changes provides a description of, and justification for, the proposed changes.
  - Section 3: Potential Changes to the Environmental Assessments provides an overview of further work being undertaken to assess how the changes would affect the environmental assessments reported in the DCO Application and the extent to which these would be different as a result of the changes.
  - Section 4: Proposed Consultation details the proposed approach to the non-statutory consultation.
  - Section 5: Compliance with The Infrastructure Planning (Compulsory Powers) Regulations 2010 sets out the approach to powers of compulsory acquisition or taking temporary possession of land.
  - Section 5: Indicative Programme sets out indicative timescales for making the proposed changes to the Project.
  - **Appendix A:** contains plans showing Order Limits updates and the location of the proposed changes.



# 2.0 PROPOSED CHANGES

#### 2.1 Introduction

- 2.1.1 Pre-application consultation has been a central feature of the Project. Commencing in October 2019 there have been two main stages of preapplication consultation (Stage 1 and Stage 2), followed by a stage of 'Update Consultation' and targeted consultation, which concluded in Spring 2021. Throughout the pre-application stage the Applicants have sought to provide the local community and other stakeholders with clear information on their proposals and the changes made to them while also taking account of the comments and feedback received.
- 2.1.2 The changes sought to the DCO Application would reduce optionality, land take and complexity, and respond to matters raised in the Relevant Representations or in discussions directly with Interested Parties. Their overall effect would therefore be positive in reducing the potential effects of the Project on Interested Parties and affected persons, reducing the number of issues to be considered in the Examination once it commences and simplifying both the Examination and decision-making processes.
- 2.1.3 The submission of the formal change request in advance of the Examination would provide for a more efficient Examination process, which would be of benefit to all parties, and more broadly will help to ensure delivery of the Project which is critical to the UK Government's strategy for net zero by 2050.

#### 2.2 Materiality of the Proposed Changes

- 2.2.1 Neither 'The Planning Act 2008' nor 'The Infrastructure Planning (Changes to, and Revocation of, Development Consent Orders) Regulations 2011' define what constitutes a material change to a project.
- 2.2.2 Advice Note 16 clarifies that *"whether the change is substantial"* will be an appropriate consideration in identifying a material change. The matter is ultimately a question of planning judgement, which Advice Note 16 confirms may be based on criteria including:
  - whether the change would generate new or different likely significant environmental effect(s); and
  - whether (and if so the extent to which) a change request involves an extension to the order land, particularly where this would require additional compulsory acquisition powers, e.g. for new plots of land and/or interests.
- 2.2.3 The change request primarily relates to reductions to the Order Limits. However, a single minor extension to the existing Order Land is proposed to accommodate landowner boundaries – in the order of 110 m<sup>2</sup>. This



extension is in the process of being agreed as part of a voluntary agreement with the landowner.

- 2.2.4 At this stage it is not possible to determine whether the proposed changes will generate new or materially different environmental effects, but that is considered to be an unlikely outcome given the nature of the changes and parameters of the 'Rochdale Envelope' applied to the EIA of the Project in order to provide a worst case assessment of environmental effects. Nevertheless, taken together, the changes may be considered to constitute a material change to the Project. The Project, however, remains in nature and substance that which was originally applied for. Whether the changes are material or not, the Applicants intend that they be fully publicised and consulted upon.
- 2.2.5 This document follows the guidance on how to make a request for a material change to an accepted application, in accordance with the flowchart shown in Figure 1 of Advice Note 16.
- 2.2.6 This document constitutes Step 1 of that flowchart and provides the ExA with the necessary information to allow advice to be given to the Applicants (Step 2). Requested advice includes: the procedural implications of the proposed changes and guidance on the need, scope, and nature of the consultation that the Applicants propose to undertake.

#### 2.3 Description and Rationale behind the Proposed Changes

- 2.3.1 There are three main conceptual changes to the Project being proposed when compared with the Project that was presented in the DCO Application submitted in July 2021 and from which 13 specific changes flow:
  - the natural gas connection route (the 'Gas Connection') for Work No. 2A has been selected;
  - the CO<sub>2</sub> Gathering Network route from the north of the River Tees and across the River Tees to the Power Capture and Compression ('PCC') site forming part of Work No. 6 has been reduced in land area; and
  - updates have been made to land parcels across the Project due to further pre-front end engineering design (FEED) construction assessments and landowner discussions.
- 2.3.2 The changes to the Project to reduce optionality in respect of the Gas Connection and CO<sub>2</sub> Gathering Network are set out below. Full details of the options originally presented in the DCO Application submitted in July 2021 are set out in the Explanatory Memorandum (October 2021) (Document Ref. 2.2).



#### Gas Connection

- 2.3.3 As part of the DCO Application, three options for the Gas Connection (Work No. 2A) were included:
  - Option 1A (National Gas Grid (NGG) tie-in and new underground pipeline): natural gas will be supplied via a tie-in to the gas transmission network on the north bank of the Tees at Seal Sands with subsequent transport through a new 24" buried gas line. The new pipeline would cross the Tees within a newly constructed tunnel.
  - Option 1B (Trafigura tie-in and new underground pipeline): the outlet from a new NZT Above Ground Installation (AGI) could be routed into the existing, disused 24" Trafigura pipeline which runs between the Teesside Gas Processing Plant (TGPP) on Seal Sands to the Navigator Terminal. At this location a tie-in will be constructed which then connects into the new 24" gas line and into the new tunnel and on to PCC Site.
  - Option 2 (Sembcorp Pipeline Tie-In): the outlet from a new NZT AGI could be fed into the existing, disused 24" Sembcorp gas line which runs through North Tees. The existing Sembcorp pipeline crosses the River Tees and lands on the north bank of Dabholm Gut and runs on to Wilton site on South Tees. At a point near the Bran Sands Wastewater Treatment Plan (WwTP), a new tie-in would be constructed which then connects via a new AGI into a new gas pipeline which would run to the PCC Site via a wayleave to the east of the Bran Sands WwTP.
- 2.3.4 During the period from May 2021 to February 2022, a combination of further engineering studies, on-site assessments and landowner and asset owner engagement has enabled the optionality for Work No. 2A to be refined.
- 2.3.5 The Applicants propose to select Option 2 (Sembcorp Pipeline Tie-In). The 'New Build Options' comprising Option 1A (NGG tie-in and new underground pipeline) and Option 1B (Trafigura tie-in and new underground pipeline) for the Gas Connection have now been deselected.
- 2.3.6 The optionality with respect to the Gas Connection will be removed from the Project by the proposed changes.
- 2.3.7 The removal of Option 1A and Option 1B has had the consequential beneficial impact of reducing the land requirements for the Project at the following locations:
  - next to Seal Sands Road (North Tees);
  - on the Navigator Terminals land (North Tees); and
  - on the south bank of the River Tees, in between the Tees and the PCC Site.



#### CO<sub>2</sub> Gathering Network

- 2.3.8 As part of the DCO Application, two options were included for part of the CO<sub>2</sub> Gathering Network (Work No. 6):
  - Option 1 (Bored Long Tunnel Direct to PCC): a connection via a bored tunnel from Seal Sands directly to the PCC Site (and shared with the Gas Connection if Option 1A or Option 1B were selected for the Gas Connection) and then below ground along the southern side of the proposed Teesworks Spine Road to the PCC Site.
  - Option 2 (HDD and connection via Dabholm Gut): a connection installed using a horizontal directional drilled (HDD) bore from Seal Sands to the northern bank of the mouth of Dabholm Gut and then above ground along the northern bank of Dabholm Gut past Bran Sands WwTP and then north to the PCC Site.
- 2.3.9 As a result of the selection of Option 2 (Sembcorp Pipeline Tie-in) for the Gas Connection, Option 1 (Bored Long Tunnel Direct to the PCC Site) has been de-selected. Building a new tunnel for the CO<sub>2</sub> pipeline on its own does not merit the construction risks and associated environmental and local area disruption.
- 2.3.10 The changes propose two revised options for the CO<sub>2</sub> Gathering Network's crossing of the Tees:
  - Option 2 (HDD and connection via Dabholm Gut): the option of an HDD bore will remain within the DCO Application. However, a changed trajectory for the HDD bore used to allow the pipeline to cross the Tees now necessitates changing the direction that the HDD will be drilled and pulled from; and
  - Option 3 (Sembcorp No 2 Tunnel): this is a new option that makes use of existing infrastructure in an existing Tunnel across the River Tees that is located within the existing corridor for the CO<sub>2</sub> Gathering Network (the 'Sembcorp No 2 Tunnel').

Changed HDD Trajectory (Option 2)

- 2.3.11 Further detailed engineering assessments have been carried out for the HDD across the River Tees. These have taken into account landowner, project and operational constraints in the area, both now and future plans, plus existing asset infrastructure.
- 2.3.12 The engineering study work has demonstrated to the Applicants that the exact HDD routing trajectory needs to be changed and that as a result of the trajectory change the launch site for the HDD now needs to be on the south side of the River Tees on land to the north of Dabholm Gut (previously it was on Navigator Terminals land to the north of the Tees). The exit point where the HDD will be pulled is now expected to be north of Navigator Terminals land (within the Order Limits).



Introduction of Option 3 (Sembcorp No 2 Tunnel)

- 2.3.13 As a result of a combination of detailed engineering and constructability studies, on-site construction review and detailed discussions with Sembcorp, inclusion of this option is now being proposed.
- 2.3.14 There are two reasons for including this further option, namely;
  - Sembcorp and the Applicants consider that there is sufficient space inside the tunnel for the construction and operation of the CO<sub>2</sub> pipeline and that the construction risks are manageable.
  - Use of the Sembcorp No. 2 Tunnel also presents a more sustainable solution that utilises existing infrastructure, and will therefore cause less surface disruption in the area compared to an HDD. The introduction of this option is proposed via the changes set out below and it is currently the Applicants' preferred option. Subject to final engineering assessments, which are anticipated to be completed by June 2022, and considering responses to the consultation, it is anticipated that this option will be selected (and if so then Option 2 (the HDD)) will be dropped.

Minor Updates to Land Requirements across the Project

- 2.3.15 As part of the landowner engagement process there has been feedback on the width of corridors being proposed in the Order Limits. These concerns have been considered by the Applicants and where possible land is proposed to be removed from the Order Limits or redesignated from 'permanent rights' to 'temporary possession'.
- 2.3.16 The Applicants have carried out a series of Land Plans reviews with the new information gathered within the period June 2021 until January 2022, combined with further constructability information (from detailed engineering studies, site visits and land-owner meetings) and as a result have reduced either the land requirements or land rights sought in:
  - the CO<sub>2</sub> Gathering Network corridor around Billingham and Seal Sands;
  - in the CO<sub>2</sub> Gathering Network corridor to the south-east of the NWL Brans Sands WwTW facility;
  - the Electrical Connection near Tod Point substation; and
  - on the Teesworks site (existing outfall and other permanent and temporary land areas, including access routes and the power cable export route).
- 2.3.17 In addition to reducing the land requirements or rights sought, the Applicants have also identified the need for a minor increase in the size of the proposed temporary construction and laydown area located off Seaton-Carew Road in the Seal Sands area.



# 2.4 Summary of the Proposed Changes

2.4.1 The proposed changes set out in Section 2.3 above are described below in terms of changes to the individual Work Number (Nos.) listed at Schedule 1 'Authorised Development' of the draft DCO (Document Ref. 2.1) and shown upon the Works Plans (Document Ref. 4.4). The Applicants are proposing 13 changes in total which are summarised in Table 2.1 below and explained in the text that follows. Changes that relate to a specific location are shown on the plans at Appendix A.

	outlinitary of Proposed Development onlanges		
Change	Description	Material on	
No.		its own?	
1	Removal of optionality for the Gas Connection by removal of both 'new build' options - Option 1A and Option 1B (i.e. removal of the long tunnel between North Tees and the PCC Site) resulting in a reduction in the Order Limits. There will also be a reduction in land take elsewhere following pre-Front End Engineering Design (pre FEED) and landowner consultation for the selected Gas Connection - Option 2 (Sembcorp Pipeline Tie-In) (Work No. 2A)	No	
2	Reduction in optionality for the Gas Connection has resulted in the removal of the Above Ground Installation required for Option 1B (Trafigura tie-in and new underground pipeline). This results in a reduction in the Order Limits. (Work No. 2B)	No	
3	Reduction in the Order Limits for Work No. 3A Electrical Connection by removal of the STDC Sub-station at Tod Point and a reduction in land take following landowner consultation. (Work No. 3A)	No	
4	Reduction in the Order Limits for Work No. 5A (repair and reuse of the existing water discharge infrastructure to the Tees Bay) – to cover the physical extent of the existing outfall and its direct routeing to the PCC Site only. (Work No. 5A).	No	
5	Reduction in the Order Limits for Work No. 5C (new wastewater pipelines between Bran Sands WwTP and Generating Station) - connection to Bran Sands to reflect a reduction in land take following landowner consultation. <b>(Work No.</b> <b>5C)</b> .	No	

#### Table 2.1 – Summary of Proposed Development Changes



Change	Description	Material on
No.		its own?
6	Change in optionality for Work No. 6 by removal of Option 1 (Bored Long Tunnel Direct to PCC Site) for the CO <sub>2</sub> Gathering Network (see also Change 1 for the Gas Connection) resulting in reduction in the Order Limits. It also includes a reduction in other land areas of Work No. 6 following pre-FEED design and landowner consultation. (Work No. 6)	No
7	Change in the means of crossing the River Tees within the Order Limits for Work No. 6 CO <sub>2</sub> Gathering Network to include new Option 3 (Sembcorp No 2 Tunnel). <b>(Work No. 6)</b>	Potentially
8	Change in the means of crossing the River Tees in the Order Limits for Work No. 6 CO <sub>2</sub> Gathering Network (HDD crossing) as part of Option 2 (HDD) to change the direction of HDD drilling (from Dabholm Gut to North Tees, rather than <i>vice versa</i> ) following pre-FEED design (Work No. 6)	Potentially
9	Reduction in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas to reflect a reduction in land take following pre- FEED design and landowner consultation. (Work Nos. 9A, 9B and 9F)	No
10	Minor increase in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas to include an additional land-parcel at Saltholme Laydown (Work No. 9D) to allow access to Seaton Carew Road. <b>(Work No 9D)</b>	No
11	Changing Work No. for pipe stringing for a land parcel on the Teesworks site from Work No. 5A to Work No. 9A. <b>(Work No. 9A)</b>	No
12	Addition of part of Seal Sands Road from Work No. 2A to Work No. 10 Access and Highways Improvements, to allow access to Navigator Terminals from the public road network following removal of Gas Connection Option 1A (NGG tie-in and new underground pipeline) and Option 1B (Trafigura Tie-In and new underground pipeline) from Work No. 2A (linked to Change No. 1). (Work No. 10)	Νο



Change No.	Description	Material on its own?
13	Removal of a small parcels of land in the Seal Sands area and from STDC land from Work No. 10 Access and Highways Improvements as no longer required following pre-FEED design. (Work No. 10)	No

- 2.4.2 Neither 'The Planning Act 2008' (PA 2008) nor 'The Infrastructure Planning (Changes to, and Revocation of, DCOs) Regulations 2011' define what constitutes a material change to a project.
- 2.4.3 'Planning Act 2008: Guidance for the examination of applications for development consent' (DCLG, 2015) explains at paragraphs 109-115 general considerations around making changes to an application post-acceptance and factors that the ExA will take into account in deciding to accept an application for a material change. The guidance notes at paragraph 110 that if the *"proposed change is of such a degree that it constitutes a materially different project then the applicant will need to determine how best to proceed"*.
- 2.4.4 Advice Note 16 clarifies that *"whether the change is substantial"* will be an appropriate consideration in identifying a material change. The matter is ultimately a question of planning judgement, which Advice Note 16 confirms may be based on criteria including:
  - whether the change would generate new or different likely significant environmental effect(s); and
  - whether (and if so the extent to which) a change request involves an extension to the order land, particularly where this would require additional compulsory acquisition powers, e.g. for new plots of land and/or interests.
- 2.4.5 The proposed changes do not involve any changes to the nature or substance of the Project. The Project would remain a full chain Carbon Capture, Usage and Storage project, comprising a number of elements, including a new gas-fired electricity generating station (with an electrical output of up to 860 megawatts) with post-combustion carbon capture plant; gas, electricity and water connections (for the electricity generating station); a CO<sub>2</sub> pipeline network for collecting CO<sub>2</sub> from a cluster of local industries on Teesside; a high-pressure CO<sub>2</sub> export pipeline.
- 2.4.6 At this stage, based upon the Applicants' initial assessment results it is considered unlikely that these changes will generate new or materially different environmental effects. As indicated above, when considered individually, the Applicants consider that the majority are not material, and that only two are potentially material.



- 2.4.7 The proposed changes are not individually or collectively so substantial or different in character as to be a different project. The development now being proposed remains in nature and substance that which was originally applied for. The proposed changes involve no change to the use, general location, purpose, and generating capacity of the Project, the land requirements and rights within the Order Limits are largely only being reduced in order to deliver the same Project, and only a very limited area of additional land take is required relative to the overall land take of the Project.
- 2.4.8 The proposed changes are explained in more detail below. The proposed updates to the Order Limits and the location of the proposed changes are shown on the plans at **Appendix A**. Those show the current Order Limits (as per the DCO Application submitted in July 2021) in blue shading, and the proposed updates to the Order Limits in red outline. An overview plan of the whole Order Limits is presented, followed by 14 sheets each showing the relevant part of the Order Limits in more detail.
- 2.4.9 Reference should also be made to Section 3 which explains, at high level, the potential environmental changes associated with each of the proposed changes.

# 2.5 The Proposed Development Changes

#### Change 1: Removal of Optionality for the Gas Connection (Work No. 2A Underground High-Pressure Gas Pipeline)

- 2.5.1 This change removes optionality from Work No. 2A by removal of the 'new build' options for the Gas Connection: Option 1A (NGG tie-in and new underground pipeline) and Option 1B (Trafigura tie-in and new underground pipeline). Change 2 is also linked to this change (see further below). This follows an agreement for the supply of gas to the PCC Site via a direct connection to the existing Sembcorp gas pipeline at Bran Sands (Option 2), which does not require a new crossing of the River Tees. Following pre-FEED design and agreement for the supply of natural gas from the Sembcorp pipeline, this enables Option 2 (Sembcorp Pipeline Tie-in) to be selected.
- 2.5.2 Whilst this change removes the requirement for a bored tunnel from Navigator Terminals direct to the PCC Site, there is still a requirement for a crossing of the Tees by the CO<sub>2</sub> Gathering Network (Work No. 6) (see Changes 6 to 8 below).
- 2.5.3 Pre-FEED design and landowner consultation has also enabled a decrease in the Order Limits by narrowing of the route of Option 2 (Sembcorp Pipeline Tie-in) where it passes to the south-east of Bran Sands Wastewater Treatment Works and Teesworks.

Change 2: Reduction in Optionality for Work No. 2B Above Ground Installations



- 2.5.4 Removal of the Gas Connection Option 1B (Trafigura tie-in and new underground pipeline) (Change 1) results in the removal of the requirement for an AGI at Navigator Terminals.
- 2.5.5 The proposed AGIs at Seal Sands and at the tie-in with Sembcorp's existing gas pipeline are still required and are not affected by this Change or Change 1.

# Change 3: Reduction in the Order Limits for Work No. 3A Electrical Connection

- 2.5.6 This change decreases the land included in the Order Limits by removal of the STDC Electrical Substation at Tod Point from within the area of Work No. 3A, and an existing pylon adjacent to the National Grid Substation as these are not required for the Electrical Connection.
- 2.5.7 Pre-FEED design, cable routing studies and landowner consultation has also enabled narrowing of the route of Work No. 3A by removing land to the north and south of the existing National Grid Tod Point and STDC substations.

#### Change 4: Reduction in the Order Limits for Work No. 5A Wastewater Disposal Works – Existing Outfall

2.5.8 Pre-FEED design work and landowner consultation (including the provision of new technical documentation) has confirmed the location of the existing outfall from the former Redcar Steelworks. This has allowed a decrease in the extent of land included in the Order Limits in this area by removal of land out with the physical extent of the outfall and its direct routeing to the PCC Site.

# Change 5: Reduction in the Order Limits for Work No. 5C Wastewater Disposal Works – Pipeline Connections to Bran Sands

2.5.9 Landowner consultation has enabled slight narrowing of the route of Work No. 5C where it passes by the fence line to the east of Bran Sands WwTP and the Teesworks site.

Change 6: Reduction in Optionality for Work No. 6 CO₂ Gathering Network

- 2.5.10 This change reduces optionality from Work No. 6 (CO<sub>2</sub> Gathering Network) by removal of the long tunnel from Navigator Terminals direct to the PCC Site (Option 1) (Long Bored Tunnel Direct to PCC) (also see Change 1 above). Instead, the CO<sub>2</sub> Connection will cross the Tees, either by means of a new pipeline installed using HDD techniques (the existing Option 2 (HDD and connection via Dabholm Gut), and see Change 8 below) or by use of existing infrastructure (the new Option 3 (Sembcorp No. 2 Tunnel), see Change 7 below).
- 2.5.11 In addition, pre-FEED design and landowner consultation has enabled significant reduction of the land needed for Work No. 6 across the



Billingham, Saltholme and Seal Sands areas on North Tees. In particular in Seal Sands and Billingham the Order Limits have been comprehensively reviewed and discussed further with landowners. This has resulted in the width of the corridor for Work No. 6 being reduced in a number of places and, within the remaining corridor the powers sought would be changed from land over which permanent rights are sought to land of which temporary possession for construction is sought.

2.5.12 The remaining option (Option 2 (HDD and connection via Dabholm Gut)) passes to the south and east of Bran Sands WwTP and Teesworks site as shown on the Works Plans (Document Ref. 4.4).

# Change 7: Change in the Means of Crossing the Tees (Work No. 6 CO<sub>2</sub> Gathering Network – Use of Existing Infrastructure)

- 2.5.13 This change effectively replaces the long new tunnel (removed in Change 6) with the option to use an existing short tunnel (known locally as Sembcorp No. 2 Tunnel) the latter would be called Option 3, for the CO<sub>2</sub> Gathering Network. It is a different means of crossing the Tees, but no new land is required as the tunnel was already within the existing Order Limits and was already proposed to potentially be used for the fibre optic cable associated with the CO<sub>2</sub> Gathering Network.
- 2.5.14 By utilising existing infrastructure under the Tees within the reduced Order Limits (new Option 3) there is considered to be an environmental benefit and reduced disruption by avoiding the need to drill an HDD bore under the Tees (see Section 3.8).

# Change 8: Change in the Means of Crossing the Tees (Work No. 6 CO<sub>2</sub> Gathering Network – Change in the Trajectory and Direction of Drilling of HDD Bore)

In the DCO Application submitted in July 2021, the HDD bore forming 2.5.15 Option 2 of Work No. 6 was to be drilled from North Tees at Navigator Terminals to the isthmus of land north of Dabholm Gut in South Tees. Pre-FEED design work for this option has shown that the trajectory required to minimise land-owner disruption to current and future plans and also minimise risk to existing assets results in a different route being needed, within the Order Limits. The new routing has changed the launch pit location from land on the north of the Tees to an area next to the lagoon north of Dabholm Gut (south of the Tees). Option 2 remains unchanged overall but requires stringing of pipe along the existing North Tees pipeline corridor next to Seal Sands Road to enhance constructability. The area used for pipe stringing will include land to the north of Seal Sands Road originally identified in the DCO Application for construction of Option 1A (Long Bored Tunnel Direct to PCC) for the Natural Gas Connection (Work No 2A) (and which is being removed as per Change 1). An associated land re-designation from permanent rights to temporary rights will take place in this area.



# Change 9: Reduction in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas

2.5.16 Pre-FEED design work, construction re-assessment and consultation with landowners has meant that it has been possible to reduce the land requirements for the proposed Laydown Areas on the Teesworks site (Work No. 9A), at Navigator Terminals (Work No. 9B) and at Haverton Hill (Work No. 9F).

# Change 10: Minor increase in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas

2.5.17 The Applicants have identified a very small gap between the Order Limits at the proposed Saltholme Laydown Area (Work No. 9D) and Seaton Carew Road. This means that it has been necessary to add a new plot of land on the western side of the proposed Saltholme Laydown Area (Work No. 9D) to allow direct access to Seaton Carew Road. The area of the new land required has an area of approximately 110 m<sup>2</sup>. The new plot of land would be used for the same purpose as the immediately adjacent plot, as part of Work No. 9D.

# Change 11: Change in Work Number for Pipe Stringing

2.5.18 Some of the land required for stringing the wastewater pipeline for Work No. 5B (Replacement Wastewater Outfall) and the CO<sub>2</sub> export pipeline for Work No. 8 (High Pressure CO<sub>2</sub> Export Pipeline) on the Teesworks site is currently included in Work No. 5A (and will be removed from that Work No. as part of Change 4). It is necessary to change this area to Work No. 9A (Teesworks Temporary Construction and Laydown Area) to allow its use for pipe stringing. The area to remain in the Order Limits will stay as one over which powers of temporary possession are required.

# Change 12: Addition of part of Seal Sands Road to Work No. 10 Access and Highway Improvements

2.5.19 Access to the private portion of Seal Sands Road between the TGPP and the Central Area Gas Transmission System (CATS) terminals and Navigator Terminals was previously required for Option 1A (Long Bored Tunnel to the PCC Site) for the Gas Connection, and it has always been the Applicants' proposal to use Seal Sands Road for the purposes of access for all parts of the Proposed Development. The removal of Option 1A of Work. No. 2A means that Seal Sands Road would not then be included within any Work No. As this land is still required for access, this minor change therefore transfers this portion of Seal Sands Road to within Work No. 10 (Access and Highway Improvements).

#### Change 13: Removal of small parcels of land from Work No. 10 Access and Highway Improvements

2.5.20 A small piece of land between the public section of Seal Sands Road and the route of the CO<sub>2</sub> Gathering Network (Work No. 6) was previously



included in Work No. 10 to allow access to Work No. 6 from Seal Sands Road. Pre-FEED design has shown that this access point is not necessary and it has been removed from Work No. 10.

2.5.21 Following further on-site discussions and detailed review of the land areas inside the STDC property, a number of small land portions on road verges and embankments have been removed from Work No. 10 as these are no longer necessary.



# 3.0 POTENTIAL CHANGES TO THE ENVIRONMENTAL ASSESSMENTS

#### 3.1 Introduction

- 3.1.1 The findings of the environmental assessments reported in the DCO Application are unlikely to substantially alter as a result of the proposed changes. However, further work is required to confirm that there will be no new or materially different effects. Such confirmation will be provided when the Applicant submits the formal change request (Step 4).
- 3.1.2 For each change to the Project, this section of the document identifies the scope of any further assessment considered necessary and provides an initial view on which environmental topics are potentially likely to be affected. Where this further assessment identifies a change, the cumulative effects will also be considered.
- 3.1.3 The findings of the Habitats Regulations Assessment Report (HRA) (Document Ref. 5.13) are anticipated to be unchanged, however this will be reviewed alongside the updates to the environmental assessments to confirm. The updated HRA will be provided when the Applicant submits the formal change request (Step 4).
- 3.1.4 This section also identifies some of the potential reports to be included as part of the formal change request although it is not an exhaustive list and it is recognised that Advice Note 16 identifies a range of documents that must be prepared.

#### 3.2 Change 1: Removal of Optionality for the Gas Connection (Work No. 2A Underground High-Pressure Gas Pipeline)

- This change will remove the need for a bored tunnel and the excavation 3.2.1 of associated shafts at Navigator Terminals and Teesworks following agreement for the supply of gas to the PCC Site from the existing Sembcorp pipeline at Bran Sands. There will also be no requirement for excavation for pipeline construction at Navigator Terminals and to the north of Seal Sands Road. Together these reductions in project scope will reduce the volume of spoil requiring stockpiling and disposal, reducing associated Heavy Goods Vehicle (HGV) movements and the potential for dust generation. It will also reduce visual impact due to the reduced quantity of spoil requiring stockpiling. Removal of the new tunnel options will reduce noise impacts associated with shaft excavation and remove any potential risk of migration of contamination from Bran Sands landfill. It will also reduce potential impacts on wildlife (principally birds). The effect of removing this option is likely therefore to be beneficial.
- 3.2.2 It will be necessary to review and potentially update the transportation, noise, landscape and visual, and ornithological assessments as well as the HRA. All other assessments should remain unchanged.



# 3.3 Change 2: Reduction in Optionality for Work No. 2B Above Ground Installations

- 3.3.1 All of the gas connection options require construction of a new AGI adjacent to the National Gas Grid AGI at the CATS terminal so there will be no change in relation to that aspect with retention of only Option 2 (Sembcorp Pipeline Tie-In). Removal of the need to construct an additional AGI at Navigator Terminals to connect to the Trafigura Pipeline (part of the de-selected Option 1B for the Gas Connection) will reduce HGV movements associated with excavated spoil removal, reduce noise generation associated with construction, and reduce dust generation. The effect of removing this option is likely therefore to be beneficial.
- 3.3.2 It will be necessary to review the transportation, noise and ornithological assessments. All other assessments should remain unchanged.
- 3.4 Change 3: Reduction in the Order Limits for Work No. 3A Electrical Connection
- 3.4.1 This change will increase the distance to noise sensitive receptors from sub-station construction (as construction effects were measured from the Order Limits). The effect of removing this option is likely therefore to be beneficial.
- 3.4.2 It will be necessary to review the noise and ornithology assessments. All other assessments should remain unchanged.
- 3.5 Change 4: Reduction in the Order Limits for Work No. 5A Wastewater Disposal Works – Existing Outfall
- 3.5.1 This change will increase the distance to noise sensitive receptors from any refurbishment operations (as effects were measured from the Order Limits). The effect of removing this option is likely therefore to be beneficial.
- 3.5.2 It will be necessary to review the noise and ornithology assessments. All other assessments should remain unchanged.
- 3.6 Change 5: Reduction in the Order Limits for Work No. 5C Wastewater Disposal Works – Pipeline Connections to Bran Sands
- 3.6.1 This change will increase the distance to noise sensitive receptors from any construction operations (as construction effects were measured from the Order Limits). The effect of removing this option is likely therefore to be beneficial.
- 3.6.2 It will be necessary to review the noise and ornithology assessments. All other assessments should remain unchanged.
- 3.7 Change 6: Change in Optionality for Work No. 6 CO<sub>2</sub> Gathering Network
- 3.7.1 The change in environmental effects associated with the removal of Option 1, which involved the construction of a long bored tunnel from



Navigator Terminals direct to the PCC Site, is the same as Change 1 above, and therefore does not need to be separately considered.

- 3.7.2 Narrowing the Order Limits to the north-east of Bran Sands and at Teesworks will increase the distance to noise sensitive receptors from any construction operations (as construction effects were measured from the Order Limits).
- 3.7.3 The effect of removing this option is likely therefore to be beneficial. As with Change 1, it will be necessary to review the transportation, noise, landscape and visual and ornithological assessments and also the HRA. All other assessments should remain unchanged.

#### 3.8 Change 7: Change in the Means of Crossing the Tees (Work No. 6 CO<sub>2</sub> Gathering Network – Use of Existing Infrastructure)

- 3.8.1 The introduction of Option 3 for the CO<sub>2</sub> Gathering Network provides an alternative crossing of the Tees to the long tunnel (removed in Change 6) by use of the existing Sembcorp No. 2 tunnel infrastructure across the Tees. This change, compared to Option 1 (the long-bored tunnel) or Option 2 (the HDD) (those considered in the EIA) will reduce the volume of spoil requiring stockpiling and disposal, reducing HGV movements and the potential for dust generation. It will also reduce visual impact due to the reduced quantity of spoil requiring stockpiling. Use of the existing tunnel infrastructure instead of the long bored tunnel or an HDD will also reduce noise impacts associated with boring / drilling. Noise impacts of onshore pipe handling and stringing are likely to be less than the alternative since a large proportion of the construction works will take place inside the tunnel compared to an HDD installed pipeline. It will also reduce potential impacts on wildlife (principally birds).
- 3.8.2 The construction and operation of a low-pressure CO<sub>2</sub> pipeline through an existing services tunnel will also require an update of the Major Accidents and Natural Disasters assessment.
- 3.8.3 The use of the existing tunnel infrastructure is likely therefore to be beneficial. It will be necessary to review the transportation, noise, landscape and visual, ornithological and major accidents assessments and also the HRA. All other assessments should remain unchanged.

#### 3.9 Change 8: Change in the Means of Crossing the Tees (Work No. 6 CO<sub>2</sub> Gathering Network – Change in the Trajectory and Direction of Drilling of HDD Bore)

3.9.1 Changing the trajectory in itself has no impact on the Order Limits. However, the change in trajectory requires a reversal of the direction of drilling of the HDD bore so that it is from Dabholm Gut to North Tees as part of Option 2 for the CO<sub>2</sub> Gathering Network. This will mean that the HDD drilling equipment will be located adjacent to the Bran Sands Lagoon. Whilst the Order Limits are not changing in this area, the operations adjacent to the Lagoon will therefore change. The Lagoon is included



within the Teesside and Cleveland Coast Site of Special Scientific Interest, Special Protection Area and Ramsar site for its use by birds. It will therefore be necessary to consider the environmental impacts of HDD operations in this area and whether there is the potential for them to cause noise or visual disturbance to bird species using the lagoon.

- 3.9.2 This will require consideration in the relevant assessments, and the Applicants note that there is existing information in the DCO Application which can be drawn on as it is directly relevant to the consideration of these matters. An assessment of HDD noise for the construction of the CO<sub>2</sub> Export Pipeline located within the PCC Site is described in the HRA (See Document Ref. 5.13). This states (paragraph 6.1.15) regarding noise from pipe stringing and welding that "... noise reduction techniques (such as cowling of noisy plant) would reduce the area exposed to noise levels of 69dB LAeq to a strip of approx. 15m width which is very unlikely to be of significance for SPA/Ramsar birds". Regarding HDD, Table 6.2 of the HRA notes that with a full screening, barrier noise levels would fall to 69dB (i.e. below the 70 dB disturbance threshold agreed with Natural England) at 24m from the HDD.
- 3.9.3 The isthmus between the lagoon and Dabholm Gut is 70m wide at the relevant point, so with full screening, it appears that a conclusion of no Likely Significant Effects (post-mitigation) is likely on the basis that the works could be positioned such that the 69 dB threshold is not breached within the SPA.
- 3.9.4 In relation to visual disturbance, the HRA (paragraph 6.1.18) refers to a Final Construction Environmental Management Plan (CEMP) and includes reference to: *"Using visual screens (particularly when working in or near the pools of the SPA / Ramsar) for works associated with the CO<sub>2</sub> pipeline".* The Applicants consider it will be possible to provide such visual screening along the side of the Lagoon in combination with noise attenuation barriers near the HDD drilling equipment.
- 3.9.5 The reversal of drilling directions means that pipe stringing operations will move from along the Dabholm Gut to North Tees and along the edge of the Seal Sands Road. This change will require the noise assessment to be reviewed.
- 3.9.6 The change will also mean that traffic movements for HDD operations and pipe stringing will change from North Tees to South Tees (and *vice versa*). The change in the number of staff on each side of the Tees is unlikely to be significant, however, the transportation assessment will be reviewed to test the significance of this change.
- 3.9.7 Based on the above it will therefore be necessary to update the noise assessment, transportation assessment and the HRA. All other assessments should remain unchanged.



#### 3.10 Change 9: Reduction in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas

- 3.10.1 This change will increase the distance to noise sensitive receptors from any construction operations (as construction effects were measured from the Order Limits). The effect of removing this land area is likely therefore to be beneficial.
- 3.10.2 It will be necessary to review the noise assessment. All other assessments should remain unchanged.
- 3.11 Change 10: Minor Increase in the Order Limits for Work No. 9 Temporary Construction and Laydown Areas
- 3.11.1 This change will decrease slightly the distance to noise sensitive receptors from construction activities at Saltholme Laydown area (as construction effects were measured from the Order Limits). However due to the small size of the change the effect is unlikely to be detectable. All assessments should therefore be unchanged.
- 3.12 Change 11: Change in Work Number for Pipe Stringing
- 3.12.1 As there will be no change in the pipe stringing operations proposed and assessed in this area, there will be no change in environmental effects associated with this change.
- 3.13 Change 12: Addition of part of Seal Sands Road to Work No. 10 Access and Highway Improvements
- 3.13.1 As there will be no change in the proposed use of Seal Sands Road for the Project, there will be no change in environmental effects associated with this change.
- 3.14 Change 13: Removal of small parcels of land from Work No. 10 Access and Highway Improvements
- 3.14.1 These changes are relatively small and will not effectively increase the distance to noise sensitive receptors from any construction operations given their position within the Order Limits. The effect of removing this option is likely therefore to be neutral and all assessments should remain unchanged.



# 4.0 PROPOSED CONSULTATION

#### 4.1 Introduction

- 4.1.1 The Applicants intend to carry out non-statutory consultation to ensure that the local community and other stakeholders, including Interested Parties, are made aware of the proposed changes and have the opportunity to make comments and representations on the changes in advance of the submission of the formal change request to the ExA. This will allow for their interests to be safeguarded and for those potentially impacted by the changes to be informed and to have an opportunity to comment on what is proposed.
- 4.1.2 Notwithstanding the above, the Applicants wish to seek the views of the ExA as to the need, scope and nature of the proposed consultation exercise. The Applicants' proposed consultation activities are outlined below.

#### 4.2 Consultation Activities

- 4.2.1 Prescribed persons, including local authorities, statutory undertakers and persons with an interest in land affected by the Project and the proposed changes (and certain non-prescribed persons) will be consulted. Those consulted will be the same as those notified of the Application pursuant to Section 56 of the PA 2008 subject to any changes to the Section 56 notification list since August 2021. A letter will be sent to these persons accompanied by information on the changes and providing details of how to submit comments/feedback and a date by which to do so.
- 4.2.2 The local community will also be consulted on the proposed changes. The Applicants propose to hold two physical consultation events during the consultation period (assuming no public health restrictions are in place) at which information will be displayed on the proposed changes and people will be able to ask questions of members of the project team. Comments/feedback forms will be made available at these events. The events will be held at suitable locations within the vicinity of the Site.
- 4.2.3 The Applicants also propose to hold at least one webinar during the consultation period.
- 4.2.4 The Applicants propose to deposit hard copies of the consultation materials and documents relating to the proposed changes at venues within the vicinity of the Site subject to the agreement of the organisations responsible for those venues.
- 4.2.5 The consultation will be publicised through notices in the national and local press, including the Telegraph, London Gazette, Lloyds List and Fishing News and at least one newspaper circulating within the vicinity of the Site. The notices will be published for one week.



- 4.2.6 Posters will also be placed in public venues such as council offices to further publicise the consultation and site notices will be placed around the Order Limits.
- 4.2.7 Newspaper notices, posters and site notices will provide information on the consultation events, webinar(s) and document inspection locations.
- 4.2.8 The consultation will be publicised through the project website and social media platforms. All of the consultation materials will be available on the project website.
- 4.2.9 People will be able to submit comments and feedback by Freepost and a dedicated project email address. A phone number will also be provided for people to contact the project team and request hard copies of the consultation materials and other documents.
- 4.2.10 The Applicants will provide a period of at least 30 days from the start of the consultation for the submission of comments and feedback.

#### 4.3 Consultation Report

- 4.3.1 A Consultation Report will be submitted with the formal change request, confirming who has been consulted in relation to the proposed changes and how they were consulted in accordance with Advice Note 16. The Consultation Report on the changes will also set out the regard that has been had to the responses received.
- 4.3.2 Copies of any consultation responses received will also be included as an appendix to the Consultation Report.



# 5.0 COMPLIANCE WITH THE INFRASTRUCTURE PLANNING (COMPULSORY ACQUISITION) REGULATIONS 2010

- 5.1.1 As explained earlier in this document, the Applicants are proposing to make changes to the Order Limits/Order Land. This includes the addition of new land over which the Applicants are proposing to exercise powers of compulsory acquisition or take temporary possession (the 'Additional Land').
- 5.1.2 The Applicants will be seeking to obtain consent from all persons with an interest in the Additional Land to the inclusion of such powers within the NZT DCO. If consent cannot be obtained, the Applicants will comply with the procedural requirements set out in 'The Infrastructure Planning (Compulsory Acquisition) Regulations 2010'.
- 5.1.3 This involves submitting details of the Additional Land to the ExA, which then has 28 days to decide whether to accept the proposed inclusion of the Additional Land as part of the Application. If accepted, the Applicants will issue notices confirming when and where information about the Additional Land can be inspected and the deadline for submitting Relevant Representations about the Additional Land.
- 5.1.4 This process will be separate from and will be subsequent to the consultation on the proposed changes set out in Section 4.



# 6.0 INDICATIVE PROGRAMME

- 6.1.1 In accordance with Advice Note 16, this document sets out the steps relating to submitting the formal change request to the ExA.
- 6.1.2 For additional clarity, the programme dates for the relevant steps contained in Advice Note 16 are set out below:
  - Step 1 Notification of proposed application to ExA: 21 February 2022.
  - Step 2 ExA to provide advice: w/c 28 February 2022.
  - Step 3 Non-statutory consultation begins: w/c 8 March 2022 (consultation proposed to end 14 April 2022).
  - Step 4 Formal change request submitted to ExA: 28 April 2022.
  - Step 5 ExA decision on whether to accept the changes: at the ExA's discretion.



# APPENDIX A: PLANS SHOWING ORDER LIMITS UPDATES AND LOCATION OF CHANGES





























