

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: 9.25 Applicants' Comments on Deadline 4 Submissions

Planning Act 2008



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

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GLOSSARY

Abbreviation	Description
AOD	Above ordnance datum
AS-	Additional Submissions
BAT	Best Available Techniques
BEIS	The Department for Business, Energy and Industrial Strategy
CCGT	Combined Cycle Gas Turbine
CCUS	Carbon Capture, Utilisation and Storage
CEMP	Construction and Environmental Management Plan
CTMP	Construction Traffic Management Plan
CO ₂	Carbon dioxide
CPO	Compulsory Purchase Order
dB	Decibels
DCO	Development Consent Order
dDCO	Draft Development Consent Order
EIA	Environmental Impact Assessment
EPC	Engineering, Procurement and Construction
ES	Environmental Statement
ETS	Emissions Trading Scheme
ExA	Examining Authority
FEED	Front end engineering and design
FRA	Flood Risk Assessment
Ha	Hectares
HDD	Horizontal Directional Drilling
HIA	Hydrogeological Impact Appraisal
HoT	Heads of Terms
kV	Kilovolts
MHWS	Mean High Water Springs
MLWS	Mean Low Water Springs
Mt	Million tonnes

NATS	National Air Traffic Services
NSIP	Nationally Significant Infrastructure Project
NWL	Northumbria Water Lagoon
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
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
SuDS	Sustainable urban drainage systems
UXO	Unexploded Ordnance
WFD	Water Framework Directive

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1.0 INTRODUCTION

1.1 Overview

1.1.1 This document, the Applicants' Comments on Deadline 4 Submissions (Document Ref. 9.25) 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 (the 'Proposed 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 CO₂ from a proposed gas-fired power station in addition to a cluster of local industries on Teesside and transporting it via a CO₂ transport pipeline to the Endurance saline aquifer under the North Sea. The Proposed Development will initially capture and transport up to 4Mt of CO₂ per annum, although the CO₂ transport pipeline has the capacity to accommodate up to 10Mt of CO₂ 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 CO₂ gathering network (including connections under the tidal River Tees) to collect and transport the captured CO₂ 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 '**CO₂ Gathering Network Corridor**');
- **Work No. 7** – a high-pressure CO₂ compressor station to receive and compress the captured CO₂ from the Low Carbon Electricity Generating Station and the

CO₂ Gathering Network before it is transported offshore (the '**HP Compressor Station**');

- **Work No. 8** – a dense phase CO₂ export pipeline for the onward transport of the captured and compressed CO₂ to the Endurance saline aquifer under the North Sea (the '**CO₂ 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 CO₂ 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 CO₂ export pipeline will also start in this location before heading offshore. The generating station connections and the CO₂ 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 summarise the Applicants' comments on the submissions made by Interested Parties at Deadline 4 (7 July 2022). The document is structured to provide comments on the following Interested Parties' Deadline 4 submissions:

- Section 2 – CATS North Sea Limited (CNSL)
- Section 3 – ClientEarth
- Section 4 – Climate Emergency Policy and Planning (CEPP)
- Section 5 – Sembcorp Utilities (UK) Limited
- Section 6 – PD Teesport Limited (PDT)
- Section 7 – Hartlepool Borough Council (HBC)
- Section 8 – Marine Management Organisation (MMO)
- Section 9 – Natural England (NE)
- Section 10 – Redcar and Cleveland Borough Council (RCBC)
- Section 11 – Redcar Bulk Terminal Limited (RBT)
- Section 12 – Teesside Gas & Liquids Processing and Teesside Gas Processing Plant Limited (TGPP)
- Section 13 – Stockton on Tees Borough Council (STBC)
- Section 14 – The Crown Estate

- Section 15 – Exolum Seal Sands Ltd (Exolum)
- Section 16 – Trinity House
- Section 17 – NPL Waste Management Limited (NPL)

2.0 CATS NORTH SEA LIMITED (CNSL)

2.1.1 The Deadline 4 Submission by CNSL [REP4-032] includes responses to the Applicants' comments on Written Representations [REP3-012].

2.2 Applicants' Response

Issue 1. Introduction & 2. Background to CNSL's operations

2.2.1 The Applicants have no further comment.

Issue 3. Compulsory acquisition of land occupied by CNSL is unnecessary and could cause material disadvantage & 4. Compulsory acquisition plot 112

2.2.2 The Applicants refer to the responses provided in REP3-012. Plot 112 represents a strategic location for the natural gas supply for the Proposed Development, given the source of natural gas and connection to the existing Sembcorp South Pipeline. The Applicants have assessed an alternative plot in vacant land adjacent to the CATS terminal. This assessment determined that it would be significantly more challenging to design and construct this option due to the existing apparatus, including crossing the CATS pipeline twice.

2.2.3 The Applicants will continue to work with CNSL on both technical and commercial aspects. The Applicants' preference remains to secure a voluntary agreement with CNSL for a sub-lease of the Order Land.

Issue 5. Insufficient Pre-Application Engagement

2.2.4 The Applicants can confirm that they have initiated a study with CNSL to support the development of the commercial agreement with CNSL. The Applicants will continue to work with CNSL to address the remaining concerns.

Issue 6. The Compulsory Acquisition Order Plans

2.2.5 The Applicants have no further comment.

Issue 7. Safety Issues and The Protective Provisions

2.2.6 The Applicants continue to work with CNSL on protective provisions to address CNSL's concerns.

3.0 CLIENTEARTH

3.1.1 The Deadline 4 Submission by ClientEarth [REP4-033] includes responses to the Applicants' comments on Written Representations [REP3-012].

3.2 Applicants' Response

3.2.1 The Examining Authority is directed to pages 13 – 16 of the Applicant's Written Summary of Oral Submission for Issue Specific Hearing 3 (ISH3) [Document Reference 9.22] which fully addresses the Deadline 4 submission by ClientEarth.

4.0 CLIMATE EMERGENCY POLICY AND PLANNING (CEPP)

4.1.1 The Deadline 4 Submission by CEPP [REP4-034] includes responses to the Applicants' comments on Written Representations [REP3-012].

4.2 Applicants' Response

4.2.1 The points raised in Dr Boswell's submissions focus on three key areas:

- i. The lack of certainty surrounding the GHG assessment contained within the ES chapter submitted by the Applicant, due to the possibility that the carbon intensity of gas consumed could change over time;
- ii. The lack of a cumulative assessment of the effects of the Proposed Development with other developments;
- iii. A request for the Applicant to provide information on the impact of carbon store licences associated with the project on national targets for offshore wind and trajectories for offshore wind development.

Lack of certainty around the future carbon intensity of natural gas consumed within the Proposed Development

4.2.2 The GHG assessment within the ES Climate Change chapter [APP-103] was based on the most reliable data available, both in terms of activity data (e.g., amount of fuel consumed within the proposed power station) and the emissions factors used to convert activity data to emissions estimates.

4.2.3 The emissions factor relating to the carbon intensity of natural gas consumed as a fuel was taken from the 2021 UK Government Greenhouse Gas Conversion Factors for Company Reporting¹, which represented the official set of UK government conversion factors at that time. This dataset has since been replaced by the 2022 set of factors which if used would not change the outcome of the assessment or significance of effect.

4.2.4 The factor used in the assessment represents the average emissions likely to arise from the consumption of gas during the reporting year. There may be some minor regional variations in the direct emissions from the combustion of natural gas depending on the exact source of gas consumed, but these variations are considered likely to be minimal since the gas is being obtained from the National Grid transmission system that has a defined specification that must be met. Any such minor variations are therefore very unlikely to make a potential material difference to the GHG assessment.

¹ Department for Business, Energy and Industrial Strategy (2021). *2021 Government Greenhouse Gas Conversion Factors for Company Reporting*. Online. Available at: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021> [Accessed 25th July 2022]

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- 4.2.5 As noted in the submission from CEPP there may also be a change in the carbon intensity of natural gas consumed within the Proposed Development over its operational lifetime. This change may result from a number of different factors, including a change in the source of natural gas into the UK gas network (for example through a reduction in UK production and a corresponding increase in imports) as well as an ongoing replacement of natural gas in the UK network with blue / green hydrogen and biomethane.²
- 4.2.6 There remains uncertainty around the likely rate of these transformations. and in the absence of an authoritative set of future gas carbon intensities (analogous to projections of future grid carbon intensity published by the UK Government) the current carbon intensity of natural gas was applied in the assessment to all consumption of natural gas over the operating life of the Proposed Development.
- 4.2.7 In addition, 120 countries have now endorsed the Global Methane Pledge to reduce anthropogenic methane emissions by at least 30 percent by 2030, from 2020 levels. To support the Pledge, the EU will endeavour to reduce the methane emissions from the entire value chain of oil and gas production and consumption, including by promoting appropriate international monitoring, reporting, and verification standards; by providing technical assistance and investment for methane emissions reduction along the fossil fuel value chain; and by supporting lower-GHG emissions oil and gas production and consumption.
- 4.2.8 Therefore, considering the commitments made to reduce methane emissions from oil and gas production and consumption, and assuming that the gas network will be progressively decarbonised through the at least partial replacement of natural gas with hydrogen and biomethane, applying the 2021 emissions factor for natural gas would represent a worst-case scenario for the Proposed Development. It is expected that the greenhouse gas intensity of fuel production and use in the Proposed Development will reduce over time, and therefore the assessment presented in the ES remains conservative and appropriate.
- 4.2.9 The Proposed Development will be able to monitor and report its emissions annually by applying the latest emissions factor for natural gas to each year's gas consumption.

Need for cumulative assessment

- 4.2.10 The Applicants have agreed to prepare and submit at Deadline 6 an assessment of the cumulative impact of the GHG emissions from the proposed onshore NZT scheme and the proposed associated offshore development as it is recognised that the developments are connected and will operate as a combined system.

² Energy Networks Association (2019). *Pathways to Net-Zero: Decarbonising the Gas Networks in Great Britain*. Online. Available at: [REDACTED]
[REDACTED] [Accessed 25th July 2022]

- 4.2.11 There is, however, no rationale for an assessment to be carried out on the cumulative impact of the Proposed Development and any other existing and / or approved projects in the local area. Emissions of GHGs have an impact at a global level, so there is no reason to assess the cumulative impact of a group of otherwise unconnected projects simply because they happen to be located in close proximity with each other.
- 4.2.12 Additional contextual information has been derived from a comparison of likely future emissions with national UK carbon budget totals representing a trajectory to net zero, in line with updated IEMA guidance.³
- Representative carbon budgets are also available for each local authority within the United Kingdom, prepared by researchers at the Tyndall Centre for Climate Change Research.⁴
 - It is not appropriate to use estimated carbon budgets prepared at a local authority level to provide context to the future emissions arising from the operation of Nationally Significant Infrastructure Projects such as the Proposed Development, which will provide electricity far beyond the boundaries of the local authority area where it is located.

Impact of the Proposed Development on national targets for offshore wind and trajectories for offshore wind development

- 4.2.13 The location of the offshore store licence associated with the NZT Project has potential to directly affect part of Orsted's Hornsea 4 project. There are no other potential overlaps with areas designated for offshore wind as specified by The Crown Estate Lease Areas.
- 4.2.14 As previously stated by the Applicants in the their response to Orsted's D3 Submission [REP4-030], where co-existence within the Exclusion Zone is not possible, potential mitigation considered available to Orsted includes:
- The relocation of the approximately 45 proposed turbines from the Exclusion Area, representing 0.63 to 0.67 GW of generation capacity to the residual part of the development boundary; or
 - Building out fewer, larger turbines so still delivering the 2.6 GW capacity for the Project.
- 4.2.15 The worst case reduction in generation capacity of 0.67 GW represents The worst case reduction in generation capacity of 0.67 GW represents 0.015% of the 45 GW

³ IEMA (2022). *IEMA publishes updated EIA guidance on assessing GHG emissions*. Online. Available at: [REDACTED]

[REDACTED] [Accessed 25th July 2022]

⁴ The Tyndall Centre. *The Tyndall Carbon Budget Tool*. Online. Available at: [REDACTED] [Accessed 25th July 2022]

target for offshore wind (50 GW target with 5 GW removed as specifically stated for floating wind) by 2030. The Government and CCC trajectories for offshore wind development post 2030 to 2050 states that a pathway for up to 125 GW from offshore wind. The potential reduction of 0.67 GW represents 0.005% of this target. These percentages are not expected to significantly affect the UK's ability to deliver the 2030 or 2050 targets as stated within the relevant UK plans.

5.0 SEMBCORP UTILITIES (UK) LIMITED (SEMBCORP)

5.1.1 The Deadline 4 Submission by Sembcorp [REP4-035-036] includes responses to the Applicants' Comments on Written Representations [REP3-012], responses to the Applicants' Comments on Deadline 2 Submissions [REP3-011], the Applicants' Statement of Commonality [REP3-008] and a notification of wish to attend Issue Specific Hearing 3 and Compulsory Acquisition 2.

5.2 Applicants' Response to REP4-035

5.2.1 The Applicants have no further comment.

5.3 Applicants' Response to REP4-036

ExA ExQ1 TT.1.1

5.3.1 The Applicants have been engaging with STDC on a voluntary agreement to secure rights of access to the PCC site from the public highway access to the Teesworks Site. These negotiations are ongoing and the Applicants are confident of concluding an agreement within Examination.

5.3.2 Following the clarification by Sembcorp on these plots, in parallel the Applicants will include these plots in the negotiations with Sembcorp to secure appropriate access rights to the PCC site in the event no voluntary agreement is reached with STDC.

The potential adverse effect of the Project

5.3.3 The Applicants note Sembcorp's comments and agree that the concerns can be addressed using appropriate protective provisions. Discussions are ongoing between the parties on protective provisions.

Inadequate justification for proposed compulsory acquisition or extinguishment of rights

5.3.4 The Applicants remain committed to negotiating a voluntary agreement for a pipeline easement for Work No. 6 and associated access rights. With regards to the proposed corridor widths, refer to Appendix 1 of the Written Summary of Oral Submission for CAH2 submitted at Deadline 5 (Document Ref 9.23) .

5.3.5 In response to Sembcorp's comments on the type and duration of rights sought by the Applicants, refer to the post hearing note responding to action 6 from CAH2 included in the Written Summary of Oral Submission for CAH2 submitted at Deadline 5 (Document Ref 9.23).

Need for protective provisions and additional requirements

5.3.6 The Applicants agree with Sembcorp's statement that lawyers for the parties are in active discussions with a view to agreeing suitable protective provisions.

5.3.7 With respect to including Sembcorp as a consultee on the DCO requirements, this was a matter the Applicants agreed to further consider following the Issue Specific Hearing 3 on 12 July 2022. The written summary of that hearing (Document Ref 9.22) records in the post hearing note at Item 4, that the Applicants have now included

Sembcorp as a party that must be consulted by the relevant planning authority prior to the discharge of Requirements 3, 4, 7, 8, 11, 16, 21, 23, 25 and 32. A new requirement has been inserted in Schedule 2 to specify that Sembcorp need only be consulted where the discharge of the Requirement relates to Sembcorp's land interest or in the relevant planning authority's opinion could affect Sembcorp's land interest. The Applicants consider that these amendments address Sembcorp's request for a consultee role on all of these Requirements.

Comments of Applicants DL3 Statement of Commonality

- 5.3.8 The Applicants updated Statement of Commonality submitted at Deadline 4 [REP4-022] reflects the current status outlined by Sembcorp in their Deadline 4 submission [REP4-036]. The Applicants have shared an updated SoCG with Sembcorp ahead of Deadline 4 and continue to work with Sembcorp to agree an updated draft for submission. With regards to the use of Sembcorp's no. 2 tunnel, the Applicants would refer to their Deadline 4 submission Notification of Further Proposed Changes and Update on Remaining Optionality [REP4-031].

6.0 PD TEESPORT LIMITED (PDT)

6.1.1 The Deadline 4 Submission by PDT [REP4-037] includes notification of wish to attend Issue Specific Hearing 3 and Compulsory Acquisition Hearing 2.

6.2 Applicants' Response

6.2.1 The Applicants have no further comment.

7.0 HARTLEPOOL BOROUGH COUNCIL (HBC)

7.1.1 The Deadline 4 Submission by HBC [REP4-038] includes responses to the ExA's First Written Questions (FWQs).

7.2 Applicants' Response

HBC Comment	Applicants' Response
<p>BIO.1.16 I consider that securing the reinstatement of habitats is better secured through a draft DCO (dDCO) than a CEMP. This is a critical biodiversity measure, which could be (unintentionally) under-delivered via a CEMP.</p>	<p>The Applicants confirm as outlined in response to BIO.1.16 that the measures set out in the Landscape and Biodiversity Strategy [APP-079] including the reinstatement of habitat lost or damaged during construction are already secured under Requirement 4 of the draft DCO [AS-135]. The landscaping and biodiversity protection plan must be submitted to and approved by the relevant planning authority prior to the commencement of each part of the authorised development (except for permitted preliminary works). Therefore, this is a robust mechanism for ensuring habitat reinstatement associated with any construction stage loss or damage to habitats.</p> <p>The CEMP is secured through the draft DCO at Requirement 16 and this document must be prepared in accordance with the measures set out in the Landscape and Biodiversity Strategy [APP-079].</p>
<p>BIO.1.33 the Tees South Bank Quarry has not been included in the 'cumulative and combined effects' study. I do not know the details of this project and trust to other agencies to raise it if they are concerned. I do not consider that any other projects have been missed.</p>	<p>The Applicants cannot find any applications under the name 'Tees South Bank Quarry'. It is presumed that this refers to the planning application submitted by 'Scott Bros' to Redcar and Cleveland Borough Council ('RCBC') for a soil and aggregates recycling and washing plant facility under planning reference: R/2020/0223/FF. The facility is located in the south bank area near Grangetown and was approved in August 2020. This application was not considered in the updated cumulatives long list on the basis that the site measures less than 1 hectare and was non EIA development. It should also be noted that the approved Scott Bros</p>

	<p>application was scheduled to commence operation in Summer 2022, therefore construction overlap is considered to be highly unlikely.</p> <p>The Applicants have also assessed a development under the similar title of 'Tees South Bank Quay' (RCBC Ref. R/2020/0685/ESM), but if was found that there were no cumulative effects associated.</p>
<p>HE 1.2 - It is considered that R14 of the dDCo could also apply to marine heritage assets. This would require the wording to be amended from "(2) The scheme submitted and approved must be in accordance with chapter 18 of the environmental statement." to "(2) The scheme submitted and approved must be in accordance with chapters 18 and 19 of the environmental statement."</p>	<p>Condition 15 of the Deemed Marine License prohibits licensed marine activities commencing until a written scheme of investigation has been approved by the Marine Management Organisation in consultation with Historic England. The condition also includes details of what the WSI must include comprising:</p> <p><i>details of responsibilities of the undertaker, archaeological consultant and contractor where required and appropriate; archaeological analysis of survey data, and timetable for reporting, which is to be submitted to the MMO;</i></p> <ul style="list-style-type: none"> <i>(a) details of the measures to be taken to protect record or preserve any significant archaeological features that may be found and must set out a process for how unexpected finds will be dealt with which must be in accordance with the measures in the framework construction environmental management plan;</i> <i>(b) delivery of any mitigation including the use of archaeological construction exclusion zones in agreement with the MMO;</i> <i>(c) a reporting and recording protocol, including reporting of any wreck or wreck material during construction, operation and decommissioning of the authorised development; and</i>

	<p><i>(d) a geoarchaeological assessment that determines the extent to which any deposits of paleoenvironmental features exist.</i></p> <p><i>The Applicants consider that the measures set out in Chapter 19 are replicated in DML condition 15, and accordingly no amendment to the DCO is required. It will continue discussions with the HBC to confirm if this is agreed</i></p>
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- 7.2.1 The Applicants have no further comments to make on submission made by Hartlepool Borough Council at Deadline 4.

8.0 MARINE MANAGEMENT ORGANISATION (MMO)

8.1.1 The Deadline 4 Submission by the MMO [REP4-039] includes responses to the Applicants' Comments on Deadline 2 Submissions [REP3-011] and Assessment of the Proposed Development against North East Marine Plan Policies [REP3-014]. The MMO also submitted a letter to the ExA ahead of Issue Specific Hearing 4 [AS-206].

8.2 Applicants' Response

MMO Comment	Applicant's Response
Net Zero Teesside Power Limited & Net Zero North Sea Storage Limited Deadline 3 Submission - 9.11 Applicants' Comments on Deadline 2 Submissions [REP3-011]	
<p>1.1.1 The MMO note the applicants' comments on the updated condition (23(c)) of the Draft Deemed Marine Licence (DML). The MMO have reviewed this condition in light of the applicants' comments and while the MMO appreciate the applicants' comments in relation to unexploded ordnances (UXO's), our position remains that this activity should not be included within the DML.</p>	<p>The Applicants refer to the updated DCO [REP4-002] submitted at Deadline 4. The updated condition 23 of the DMLs now states the following – No removal or detonation of UXO can take place until a UXO clearance methodology has been submitted to and approved in writing by the MMO. It must include—</p> <ul style="list-style-type: none"> (a) a methodology for the identification of potential UXO targets; (b) a methodology for the clearance of magnetic anomalies or otherwise which are deemed a UXO risk; (c) information to demonstrate how the best available evidence and technology has been taken into account in formulating the methodology; (d) a debris removal plan; (e) a plan highlighting the area(s) within which clearance activities are proposed; (f) details of engagement with other local legitimate users of the sea; (g) a programme of works; and (h) a Marine Mammal Mitigation Protocol (MMMP) with the intention of preventing auditory or other injury to marine mammals, informed, as required, by the MMO Marine Conservation Team.
<p>Our points raised in previous Deadline responses remain (e.g.RR-037),</p>	<p>Condition 23 of the DMLs has been updated in response to the MMO's</p>

MMO Comment	Applicant's Response
<p>furthermore the MMO does not consider that the environmental impacts from UXOs have been fully considered within the Environmental Statement, which further supports the MMO's stance that activities related to UXOs should be consented separately.</p>	<p>comment in RR-037, whereby the consideration of best available evidence and technology must be taken into account during the selection of the disposal method and that approval is required in writing from the MMO. With regard to the consideration of the environmental impacts from UXOs, Section 14.6, – Likely Impacts and Effects, in ES Chapter 14 Marine Ecology and Nature Conservation [APP-096] has assessed the potential impact of UXOs.</p> <p>The underwater sound modelling approach, which includes UXO, begins at paragraph 14.6.69, the proceeding paragraphs assess the effects of UXO detonation on fish and shellfish, cetacean species and seals.</p> <ol style="list-style-type: none"> 1. Paragraph 14.6.91 identifies the effects on fish and shellfish from UXO detonation during the construction phase are predicted to be Not Significant. 2. Paragraph 14.6.120 identifies the effects on cetacean species including harbour porpoise which is a qualifying feature of the Southern North Sea SAC located approximately 102km away from the site from underwater sound generated by UXO detonations during construction phase are predicted to be not significant. 3. Paragraph 14.6.121 identifies that should UXO detonations within the Tees Bay or further offshore, with the adoption of JNCC standard mitigation measures, the effect of UXO on seals is predicted to be not significant.

MMO Comment	Applicant's Response
	<p>It is considered that a proportionate and appropriate approach to assessment of potential effects from UXO clearance has been undertaken, recognising that an assessment at this stage is hypothetical since no specific UXO finds have been identified or encountered. The Applicants' intention is for the detailed control of any UXO clearance – should that be required – would be through the DML.</p> <p>The Applicant has consulted with the MMO in advance of deadline 5 and has requested meeting dates to address the wording of the DML generally and specifically to discuss the MMO's position regarding UXO.</p>
<p>Net Zero Teesside Power Limited & Net Zero North Sea Storage Limited Deadline 3 Submission – 9.14 Assessment of the Proposed Development against North East Marine Plan Policies [REP3-014]</p>	
<p>1.2.1 The MMO welcome the inclusion of an assessment of the project against the North East Marine Plan.</p>	<p>The Applicants note the comment.</p>
<p>1.2.2 For policy NE-FISH-3, the MMO recommend mentioning either what mitigation has been secured in the DML or where this can be found in the Environmental Statement.</p>	<p>The mitigation for NE-FISH-3 is secured through the draft DCO [REP4-002], Schedules 10 and 11, conditions 3 and Parts 3. The construction mitigation is also secured through Requirement 16 of the draft DCO [REP4-002].</p>
<p>1.2.3 The MMO consider the sentence should read 'no objections' rather than 'the objections'.</p>	<p>The Applicants note the comment.</p>

9.0 NATURAL ENGLAND (NE)

- 9.1.1 The Deadline 4 Submission by NE [REP4-040] includes an outline position on nutrient neutrality with regards to the Proposed Development, in summary:
- 9.1.2 Most industrial developments will not be in scope of the nutrient neutrality advice, except for when the development-specific industrial processes will result in a contribution of nitrates to the catchment of the River Tees.
- 9.1.3 As the Net Zero Teesside Project proposes to discharge industrial wastewater to the Tees Bay, which will contain nitrates, it is possible that a sufficient quantity of this will be washed back into the estuary.
- 9.1.4 Natural England has requested the applicant provide modelling to demonstrate if the wastewater is likely to reach Seal Sands (the part of the estuary that is in unfavourable condition due to nitrates), and if so what the volume and concentrations of nitrates are likely to be.
- 9.1.5 The applicant has agreed to provide this modelling but has not done so yet. Natural England will review this evidence once it is available but cannot comment further until that point.

9.2 Applicants' Response

Natural England Response	Applicants Comments
<p>Natural England's general policy with regards to hearings is that we do not have the capacity to attend and that we focus our effort on the Written Representations / Examining Authority's Questions. I can confirm that we will not be able to attend the hearing next week. Our Written Representations provide a clear statement of our position on the issue of nutrient neutrality and this is further supported by the Matters Not Yet Agreed section of the Statement of Common Ground, which we continue to work with the applicant on. In the first instance, I would direct you to those two documents. However, I understand that nutrient neutrality is a relatively new issue for consideration, so I will outline our position with regards to Net Zero Teesside below:</p>	<p>The Applicants note Natural England's comments regarding the Matters Not Yet Agreed and nutrient neutrality. The Applicant held a meeting with Natural England on 13 July 2022, to update the position regarding nutrient nitrogen and nutrient neutrality. A draft of the discharge modelling report has been circulated to Natural England for comment, which contains the modelling scenarios and outcomes.</p>
<p>Most industrial developments will not be in scope of the nutrient neutrality advice, except for when the</p>	<p>The Applicant notes the comment.</p>

Natural England Response	Applicants Comments
development-specific industrial processes will result in a contribution of nitrates to the catchment of the River Tees.	
As the Net Zero Teesside Project proposes to discharge industrial waste water to Tees Bay, which will contain nitrates, it is possible that a sufficient quantity of this will be washed back into the estuary.	The Applicants note the comment, however as discussed on the meeting of the 13 July 2022, one of the conclusions of the modelling was that dissolved inorganic nitrogen discharged to Tees Bay does not enter Tees estuary.
Natural England has requested the applicant provide modelling to demonstrate if the waste water is likely to reach Seal Sands (the part of the estuary that is in unfavourable condition due to nitrates), and if so what the volume and concentrations of nitrates are likely to be.	The Applicants provided a draft of the nutrient nitrogen assessment report to Natural England for review. One of the conclusions of the modelling was that dissolved inorganic nitrogen discharged to Tees Bay does not enter Tees estuary.
The applicant has agreed to provide this modelling but has not done so yet. Natural England will review this evidence once it is available but cannot comment further until that point.	The Applicants have provided a draft of the nutrient nitrogen assessment report to Natural England for review.
In summary, we have raised the issue of nutrient neutrality with the applicant and are waiting for the applicant to provide modelling to allow us to determine if the development is in scope of our nutrient neutrality advice.	The Applicants met Natural England on 13 July 2022 to discuss the discharge modelling and nutrient neutrality.

10.0 REDCAR AND CLEVELAND BOROUGH COUNCIL (RCBC)

10.1.1 The Applicants note the comments raised by Redcar and Cleveland Borough Council ('RCBC;') and provide responses to queries raised by the authority the table below.

Item	RCBC Response	Applicants' Response
<p>AQ1.13</p>	<p>The dispersion model has used DEFRA NOx background levels for Teesmouth and Cleveland Coast SPA, SSSI and Ramsar of 19.43 µg/m³ which is about 64% of the critical load, the predicted environmental concentration (PEC) would increase to 72% of the critical load which does seem to be increasing above the insignificance criteria, however the model suggests that the process contribution is 2.3 µg/m³ which in isolation from the background would be insignificant It is interesting to note that for Coatham Marsh which is SW of the site increases to 90% of the CL yet the prevailing wind is SW which would blow emissions NE?</p> <p>Due to modelling uncertainty and no final design spec my previous comments recommended adopting a precautionary approach and also to recommend adding a condition that a final air quality assessment and to include an odour assessment should be submitted in order to assess the impact of the development once the detailed design stage is finalised.</p>	<p>The predicted impacts at Coatham Marsh are dominated by the background NOx concentrations which already represent 90% of the critical level. The PC from the Proposed Development represent 1.2% of the critical level and therefore in accordance with Para, 5.5.2.6 of the IAQM Guidance "Air Quality Impacts on Nature Sites" which states that the 1% and 10% screening criteria should not be used rigidly and, not to a numerical precision greater than the expression of the criteria themselves the Coatham Marsh PC can be considered to represent 1% of the critical level and therefore be insignificant.</p> <p>The point on final design is noted, and it is considered that additional dispersion modelling of the final design will be required by the Environment Agency to support the Environmental Permit determination.</p>

<p>AQ1.14</p>	<p>IAQM guidance suggests that to screen out the need for further assessment, a PC for any substance emitted from an industrial source must meet both of the following criteria:</p> <ul style="list-style-type: none"> • the short-term PC is less than 10% of the short-term environmental standard; and • the long-term PC is less than 1% of the long-term environmental standard – therefore the consultants statement needs further clarification 	<p>The EA guidance <u>Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk)</u> states: “When there are local nature sites within the specified distance</p> <p>If your emissions meet both of the following criteria they’re insignificant – you do not need to assess them any further:</p> <p>the short term PC is less than 100% of the short term environmental standard for protected conservation areas</p> <p>the long term PC is less than 100% of the long term environmental standard for protected conservation areas</p> <p>You do not need to calculate PEC for local nature sites. If your PC exceeds the screening criteria you need to do detailed modelling.</p> <p>The EA’s guidance for the 1% long term and 10% short term criteria RCBC refer to is specific to SPAs, SACs, Ramsar sites and SSSI only.</p> <p>The IAQM Guidance “Air Quality Impacts on Nature Sites” states in Para. 5.5.2.2 “For local wildlife sites and ancient woodlands, the Environment Agency uses less stringent criteria in its permitting decisions. Environment Agency policy for its permitting process is that if either the short-term or long-term PC is less than 100% of the critical level or load, they do not require further assessment to support a permit application. In ecological impact assessments of projects and plans, it is, however, normal practice to treat such sites in the same manner as SSSIs and European Sites, although the determination of the significance of an effect may be different”.</p>
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		<p>The assessment applied the assessment criteria for SPAs, SACs, Ramsar sites and SSSI and for Local Nature Sites as detailed in the EA Guidance. However it should be noted that for the Coatham Marsh and Easton Pumping Station LWSs, the PCs represent 1.2% and 1.5% respectively of the critical level for NOx.</p> <p>The PCs are only slightly over the 1 % threshold to demonstrate insignificance. The IAQM Guidance Para, 5.5.2.6 states that the 1% and 10% screening criteria should not be used rigidly and, not to a numerical precision greater than the expression of the criteria themselves. As such the Coatham Marsh PC can be considered to represent 1% of the critical level and therefore be insignificant.</p>
<p>AQ 1.16</p>	<p>I have recommended that a final air quality assessment to include an odour assessment should be submitted in order to assess the impact of the development once the detailed design stage is finalised.</p>	<p>Noted - it is considered that additional dispersion modelling of the final design will be required by the Environment Agency to support the Environmental Permit determination.</p>
<p>GH 1.1</p>	<p>I have previously stated that further GI should be carried out when all demolition works have been carried out.</p> <p>The report stated recommendations for further works and further site investigation works are made in Appendix 10A annex A which will update the preliminary risk assessment and conceptual model throughout the process. For the purposes of a planning application Appendix 10A is satisfactory to act as a desk based study required for validation purposes, although consideration should be given to the mitigation of odorous emissions and potentially contaminated dust during further GI works and remedial</p>	<p>The PCC site has been cleared by Teesworks and a supplementary ground investigation is currently underway. The ground investigation is designed to support the FEED contractor's construction design. The FEED GI aims to provide structure specific geotechnical and geo-environmental parameters to support FEED design. Particular attention will be given to the following objectives:</p> <ul style="list-style-type: none"> • to obtain geotechnical design parameters and engineering properties through in-situ testing, sampling and subsequent laboratory testing of man-made deposits and underlying natural soils;

	<p>earthworks to protect both onsite and offsite receptors So I would recommend that further GI works will be necessary once the site is cleared of structures to fill in data gaps</p>	<ul style="list-style-type: none"> • to determine the aggressiveness of the soils and groundwater to buried concrete and steel; • to enable sampling and subsequent environmental testing of soils and groundwater. To inform ongoing groundwater and ground gas monitoring at Tod Point. It is understood that the site handed to bp by the current landowner (Teesworks) will be suitable for development; • to enable sampling, in-situ pressuremeter tests (in selected boreholes agreed with FEED contractor) and laboratory testing of bedrock to determine strength, weathering and geotechnical design parameters; • to investigate ground conditions, determine engineering properties and obtain preliminary design parameters for the Teesside NZT Grid Connection at Tod Point Substation; <p>The findings of the FEED GI will be used to support Detailed Design and will also be used to update the Ground Investigation Interpretive Report, site conceptual model and associated risk assessments.</p> <p>It is understood that dust suppression measures by Teesworks have been undertaken during recent site clearance works and Teesworks have undertaken dust monitoring. During the supplementary GI AECOM have sampled some of the dust for compositional analysis.</p>
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11.0 REDCAR BULK TERMINAL (RBT)

11.1.1 The Deadline 4 Submission by RBT [REP4-042] includes an update on negotiations between the parties and annotated plans showing RBT's utilities and media connections.

11.2 Applicants' Response

Reference to the agreement of Heads of Terms

11.2.1 The Applicants note RBT's comments and agrees with the current status of negotiations. The parties continue to work constructively with the aim of securing a legal agreement within Examination.

11.2.2 The Applicants will continue to engage with RBT on their wider rights and interests within the Order Limits. The Applicants are confident that these concerns can be addressed via protective provisions and therefore Heads of Terms are not required.

Protective Provisions

11.2.3 The Applicants note RBT's comments and the annotated plans submitted at Deadline 4. Following engagement with RBT on their wider rights and interests over STDC land, the Applicants are updating the protective provisions to address the potential impact of the Proposed Development on RBT.

12.0 TEESSIDE GAS & LIQUIDS PROCESSING AND TEESSIDE GAS PROCESSING PLANT LIMITED (TGPP)

12.1.1 The Deadline 4 Submission by TGPP [REP4-043] includes an update on discussions between the parties.

12.2 Applicants' Response

12.2.1 The Applicants welcome TGPP's submission and can confirm that the parties are in discussions on TGPP's land and land interests. The Applicants have issued to TGPP draft Heads of Terms and protective provisions, the Applicants will continue to update the ExA on these matters within the Compulsory Acquisition Schedule (Document Ref 9.5) and a SoCG (Document Ref 8.36), likely to be submitted at Deadline 6.

13.0 STOCKTON ON TEES BOROUGH COUNCIL (STBC)

13.1.1 The Deadline 4 Submission by STBC [REP4-044] includes responses to the ExA's First Written Questions (FWQs).

13.2 Applicants' Response

13.2.1 The Applicants have no further comments to make on submission made by Stockton-on-Tees Borough Council at Deadline 4.

14.0 THE CROWN ESTATE

14.1.1 The Deadline 4 Submissions by The Crown Estate [REP4-045-46] includes commentary on the Applicants' disapplication of the interface agreement (Article 49).

14.2 Applicants' Response

14.2.1 Refer to item 3 in the Applicants Written Summary of Oral Submission for Issue Specific Hearing 3 (Document Ref 9.22) and associated appendices.

15.0 EXOLUM SEAL SANDS LTD (EXOLUM)

15.1.1 The Deadline 4 Submission by Exolum [REP4-047] includes an update on protective provisions and a notification of intention to attend Issue Specific Hearing 3.

15.2 Applicants' Response

15.2.1 The Applicants note the comments made by Exolum Seal Sands Ltd in their Deadline 4 Submission. The Applicants have been continuing to engage with Exolum since their Deadline 4 submission, in respect of protective provisions and preparing a statement of common ground. A copy of this statement of common ground (SoCG) is provided to the Examining Authority at Deadline 5 (Document Ref 8.20).

15.2.2 The Applicants will continue to liaise with Exolum and are hopeful that protective provisions can be agreed before the conclusion of the Examination. The Applicants will continue to update the ExA on these matters within the Compulsory Acquisition Schedule (Document Ref 9.5) and via the SoCG (Document Ref 8.20)

16.0 TRINITY HOUSE

16.1.1 The Deadline 4 Submission by Trinity House [**REP4-048**] includes request to attend Issue Specific Hearing 3.

16.2 Applicants' Response

16.2.1 The Applicants had incorporated the drafting requested by Trinity House in its Deadline 3 Submission [REP3-020]. Trinity House has no approval function under the DCO. Trinity House confirmed at ISH3 that the changes to the drafting in the DCO submitted at Deadline 4 [REP4-002] addressed its concern.

17.0 NPL WASTE MANAGEMENT LIMITED (NPL)

17.1.1 NPL submitted a letter to the ExA ahead of Compulsory Acquisition Hearing 2 [AS-205], this included an update on negotiations and a tracked version of the Applicants' initial draft SoCG submitted at D4 [REP4-020].

17.2 Applicants' Response

Plot 4 – New Rights to be Compulsorily Acquired

17.2.1 The Applicants have been engaging with NPL to secure a voluntary agreement since January 2021. Good progress has been made on the terms and protective provisions and the Applicants are hopeful of securing a voluntary agreement in the near future.

Plots 1, 3, 4, 5, 6, 8, 10, 12, 14, 15, 16, 17, 18 – Mines and Mineral Rights owned by NPL Waste Management Limited

17.2.2 The Applicants submitted an updated Book of Reference at Deadline 4 [REP4-005], this update included the removal of mine and mineral rights owned by NPL. Therefore, the Applicants consider this concern has been addressed.

Contamination

17.2.3 The Applicants and NPL have been in dialogue regarding contamination on the site for some time. The Applicants believe they have now achieved a solution to the concerns raised by NPL. The Applicants have been clear with the proposed approach to NPL and has undertaken to remediate or remove any aggravation, exacerbation or disturbance of pre-existing/ historic contamination present at the Construction and Maintenance Area and Easement Area that is caused by the Applicants' works, but only to the extent so aggravated, exacerbated or disturbed (with the Grantor remaining responsible for the pre-existing contamination). This would be done in line with statutory requirements and the Applicants would also comply with Requirement 13 of the Draft DCO.

Financial Ability

17.2.4 The Funding Statement [APP-009] outlines the Applicants, Proposed Development costs and project funding. With regards to the allowance made for compensation, the Applicants outline their position during Item 8 (Funding) of Compulsory Acquisition Hearing 1. As per the transcript [EV5-002], in response to the ExA's question on providing a separate estimate for compulsory acquisition. Hereward Philpott QC ("HPQC"):

If I may, there's no doubt that the overall figure that we have provided in the funding statement includes the land acquisition costs, those land acquisition costs have been arrived at on the basis of a proper professional advice in relation to the valuation of the land that interest to be acquired. There is as you might anticipate proper commercial sensitivity over releasing an overall figure, particularly in circumstances where the relevant number of landowners is limited. And the Applicant is in negotiation with those parties to seek to acquire interests without the need for

[compensation] if possible. And therefore, it's common in circumstances where compulsory [powers] are sought for a separate figure not to be given in this case, there are good reasons, good public interest reasons why that's not appropriate.

- 17.2.5 The Applicants are reviewing NPL's updates to the SoCG. The Applicants will continue to engage with NPL on the content of the SoCG with the objective of being able to provide the ExA with an agreed draft.