

Table of Contents

1.	Introduction	1-1
1.1	Background	1-1
1.2	The Applicant.....	1-1
1.3	The Proposed Development.....	1-2
1.4	The Development Consent Process	1-3
1.5	Environmental Impact Assessment and the Purpose of the Preliminary Environmental Information Report.....	1-4
1.6	Structure of this PEI Report.....	1-6
1.7	Consultation.....	1-7
1.8	References	1-8

Tables

Table 1-1: Location of information required by Regulation 14(2) within this PEI Report	1-5
---	-----

1. Introduction

1.1 Background

- 1.1.1 This Preliminary Environmental Information (PEI) Report has been prepared by AECOM Ltd (AECOM) on behalf of Net Zero Teesside Power Limited (NZT Power) and Net Zero North Sea Storage Limited (NZNS Storage), together the Applicant, to support a proposed application (the Application) to be made to the Secretary of State (SoS) for Business, Energy and Industrial Strategy (BEIS) seeking Development Consent for the construction, operation, maintenance and decommissioning of the Net Zero Teesside (NZT) Carbon Capture, Utilisation and Storage (CCUS) project on land at Redcar and Stockton-on-Tees on Teesside (Figure 1-1: Site Location Plan, PEI Report, Volume II).
- 1.1.2 This PEI Report presents:
- a description of the Proposed Development;
 - the likely significant environmental effects of its construction, operation and decommissioning based on the preliminary environmental information available at the time of writing;
 - measures to avoid or reduce such effects; and
 - alternative sites, technologies and layouts considered.
- 1.1.3 The PEI Report is provided to support consultees in developing an informed view of the likely significant environmental effects of the Proposed Development.
- 1.1.4 The location of the Site is shown in Figure 1-1: Site Location Plan (PEI Report, Volume II). The Site and its surroundings are described in Chapter 3: The Site and Surrounding Area (PEI Report, Volume I). A detailed description of the Proposed Development is provided in Chapter 4: Proposed Development (PEI Report, Volume I).

1.2 The Applicant

- 1.2.1 NZT Power and NZNS Storage are together ‘the Applicant’. NZT Power and NZTNS Storage have been incorporated on behalf of OGCI Climate Investments LLP in relation to NZT. NZT Power and NZNS Storage are special purpose vehicles incorporated for the specific purpose of carrying out NZT.
- 1.2.2 NZT is currently owned by OGCI CI as a non-operating shareholder. From the end of June 2020, NZT will be developed by five OGCI member companies: BP, Eni, Equinor, Shell and Total, with BP leading as operator. NZT Power and NZNS Storage will promote NZT on behalf of these five member companies.



- 1.2.3 OGCI Climate Investments LLP is part of the Oil and Gas Climate Initiative ('OGCI'). OGCI comprises 12 companies from the oil and gas sector seeking to take practical actions on climate change. Members include BP, Chevron, CNPC, ENI, Equinor, ExxonMobil, OXY (Occidental Petroleum), BR Petrobras, Repsol, Saudi Aramco, Shell and Total.
- 1.2.4 OGCI has significant expertise in the field of carbon capture, with 17 of the operational large-scale CCUS projects worldwide being operated by OGCI members. OGCI has earmarked over \$1 billion for accelerating the deployment of innovative low emissions technology. NZT is one of OGCI's key investments. Further information on OGCI can be found at: <https://oilandgasclimateinitiative.com/climate-investments/#ccus>

1.3 The Proposed Development

- 1.3.1 The Proposed Development comprises the construction, operation and decommissioning of a CCUS project comprising a gas-fired power station with a net (abated) electrical output of up to 2,100 MW together with equipment required for the capture and compression of carbon dioxide (CO₂) emissions from both the generating station and a wider industrial carbon capture network in Teesside for export to an off-shore geological storage facility. The Proposed Development would also incorporate equipment for high-pressure compression of CO₂ and the landward part of an offshore export pipeline.
- 1.3.2 NZT Power will be responsible for the onshore elements of the NZT project in so far as it relates to the construction, operation and decommissioning of the power station together with the equipment required for the capture of CO₂ emissions from the generating station.
- 1.3.3 NZNS Storage will be responsible for the NZT project in so far as it relates to the construction, operation and decommissioning of the equipment required for the high-pressure compression of CO₂ from the generating station, the CO₂ Gathering Network from industrial facilities on Teesside and the CO₂ compressor/booster station, together with the onshore section of the CO₂ Export Pipeline to Mean Low Water Springs (MLWS).
- 1.3.4 Whilst the proposed development is designed for the future collection and sequestration of CO₂ from third-party industrial emitters, the capture and compression of third-party CO₂ emissions will not form part of the DCO application (and are not therefore considered in this PEI Report) but will be the subject of separate consent applications.
- 1.3.5 This PEI Report and the subsequent Environmental Statement which will accompany the DCO application relate to development solely above MLWS (but also including sub-surface pipelines crossing the tidal River Tees).
- 1.3.6 NZNS Storage will also be responsible for the offshore elements of NZT, comprising the offshore section of the CO₂ Export Pipeline below MLWS to a suitable offshore geological CO₂ storage site in the North Sea, CO₂ injection wells and associated infrastructure. The offshore elements of NZT (with the



exception of the pipeline crossings of the River Tees) do not form part of this Application and will be subject to separate consent applications.

1.4 The Development Consent Process

- 1.4.1 Part of the Proposed Development falls within the definition of a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(a) and Sections 15(1) and (2) of the Planning Act 2008 (the Act) as it includes an onshore generating station (not generating electricity from wind) in England that will have a generating capacity greater than 50 MW output. As such, a Development Consent Order (DCO) is required to authorise this part of the Proposed Development in accordance with Section 31 of the Act.
- 1.4.2 Section 115 of the Act also states that a DCO can include consent for 'associated development', that is, development that is not part of, but is associated with the NSIP. This may be development that supports the construction or operation of the NSIP, which helps to address the impacts of the NSIP or is of a type normally brought forward with the particular type of NSIP (here the generating station).
- 1.4.3 A request for a direction under Section 35 of the Act was sent to the SoS for Business, Energy and Industrial Strategy on the 25th November 2019 to formally request that the following elements (the Specified Elements) of the Proposed Development should be treated as development for which development consent under the Act is required:
- the CO₂ Gathering Network,
 - the CO₂ Compressor Station; and
 - the CO₂ Export Pipeline (landward element).
- 1.4.4 The SoS issued a direction on the 17th January 2020 which confirmed that the Specified Elements, together with any matters/development associated with them, are to be treated as development for which development consent is required. This is subject to the condition that the Specified Elements form part of the Net Zero Teesside project which includes a generating station that is an NSIP.
- 1.4.5 Consent is granted by the SoS by way of a DCO. A DCO has the effect of granting consent for a development in addition to a range of other consents and authorisations, as well as removing the need for some other consents (such as planning permission).
- 1.4.6 An application for development consent for the Proposed Development will be submitted to the Planning Inspectorate (PINS) acting on behalf of the SoS. Subject to the Application being accepted (which will be decided within a period of 28 days following receipt of the Application), PINS will then examine it and make a recommendation to the SoS, who will then decide whether to grant a DCO.



1.5 Environmental Impact Assessment and the Purpose of the Preliminary Environmental Information Report

The EIA Scoping Process

- 1.5.1 The Applicant has notified the Secretary of State in writing under Regulation 8(1)(b) of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the EIA Regulations) that it intends to provide an Environmental Statement (ES) in respect of the Proposed Development. The Proposed Development is therefore 'EIA development' for the purposes of the EIA Regulations and an ES will form part of the Proposed Application.
- 1.5.2 The purpose of the EIA Scoping process is to determine which topics should be included in the EIA, and the level of detail to which they should be assessed. An EIA Scoping Report and a request for an EIA Scoping Opinion pursuant to Regulation 10 of the EIA Regulations was submitted to PINS on the 20th February 2019.
- 1.5.3 The EIA Scoping Report (Appendix 1A in PEI Report, Volume III) was developed with reference to standard guidance and best practice and was informed by the EIA team's experience of working on a number of similar projects.
- 1.5.4 The EIA Scoping Report sets out:
- details of the Proposed Development and the Site;
 - a summary of alternatives considered;
 - a summary of existing and future baseline conditions;
 - an outline of the likely environmental effects of the Proposed Development;
 - a description of the matters to be scoped in and out of the EIA;
 - proposed assessment methods; and
 - the proposed structure of the ES.
- 1.5.5 The SoS's Scoping Opinion was received on 2nd April 2019 and is presented within Appendix 1B (PEI Report, Volume III). The matters raised have been reviewed and are being taken into consideration in the relevant technical assessments. Further details on the EIA Scoping Opinion are set out in Chapter 2: Assessment Methodology.

The PEI Report

- 1.5.6 Following the completion of an EIA Scoping Report and publication of SoS's Scoping Opinion, the EIA for a DCO is reported in two stages:
- a PEI Report is prepared to inform consultation with the public and other stakeholders about the Proposed Development, based on the

preliminary environmental information available at the time of consultation; and

- an ES is prepared to accompany the Application.

1.5.7 This document is the PEI Report which has been prepared to satisfy the requirements of Regulation 12(2) of the EIA Regulations. In accordance with Regulation 12(2)(b), the PEI Report presents “*the information referred to in Regulation 14(2) which... is reasonably required for the consultation bodies to develop an informed view of the likely significant environmental effects of the development (and of any associated development).*” Regulation 14(2) describes the requirements of an ES.

1.5.8 Table 1-1 identifies where the information defined by Regulation 14(2) can be found within this PEI Report.

Table 1-1: Location of information required by Regulation 14(2) within this PEI Report

Specified Information	Location Within PEI Report
a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development.	Volume I Chapter 3: Description of the Existing Environment, Chapter 4: Proposed Development, Chapter 5: Construction and Programme Management, and Chapter 6: Consideration of Alternatives, and supporting figures and appendices to these chapters in Volumes II and III.
b) a description of the likely significant effects of the proposed development on the environment.	Volume I Chapters 8 to 22, ‘Likely Impacts and Effects’ sections.
c) a description of any features of the proposed development, or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment.	Volume I Chapter 4: Proposed Development and Chapters 8 to 22, ‘Development Design and Impact Avoidance’ and ‘Mitigation and Enhancement Measures’ sections.
d) a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment.	Volume I Chapter 6: Need, Alternatives and Design Evolution.
e) a non-technical summary of the information referred to in subparagraphs (a) to (d).	Non-Technical Summary.
f) any additional information specified in Schedule 4 relevant to the specific characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.	Baseline conditions relevant to each assessment are described in Volume I Chapters 8 to 22, ‘Baseline Conditions’ sections. Assessment methods are described in Volume I Chapter 2: Assessment Methodology and Chapters 8 to 22, ‘Assessment Methodology and Significance Criteria’ sections Any limitations and/or difficulties with the assessments are described in Volume I Chapters 8 to 22, ‘Limitations or Difficulties’ sections.



- 1.5.9 PINS Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements (PINS, 2017) states: “A good PEI document is one that enables consultees (both specialist and non-specialist) to understand the likely environmental effects of the Proposed Development and helps to inform their consultation responses on the Proposed Development during the pre-application stage.”
- 1.5.10 In order to enable consultees to understand the likely environmental effects of the Proposed Development, this PEI Report presents preliminary findings of the environmental assessments undertaken to date. This allows consultees the opportunity to provide informed comment on the Proposed Development, the assessment process and preliminary findings prior to the finalisation of the DCO application and the ES. The Applicant is seeking the views of consultees on the information contained within this report, and there is opportunity within the process up to submission of the DCO application for both the EIA and the project design to have regard to comments received.
- 1.5.11 It should be noted that this PEI Report does not constitute a full ES, but rather presents the findings of the EIA process to date. The information presented in this PEI Report describes the current extent of the environmental assessment work undertaken based upon the information available. It is considered that the PEI Report presents sufficient preliminary environmental information to enable consultees to develop an informed view of the Proposed Development.
- 1.5.12 Following statutory consultation on the preliminary environmental information, this PEI Report will be developed into a final ES taking into consideration comments raised during the consultation. The ES will be submitted as part of the suite of DCO application materials.

1.6 Structure of this PEI Report

- 1.6.1 The structure of this PEI Report reflects the proposed format of the final ES and covers the assessment topics agreed through the EIA Scoping process.
- 1.6.2 Volume I of the PEI Report is structured into chapters, as follows:
- Chapters 1 and 2 – an introduction to the PEI Report and EIA approach;
 - Chapters 3 to 6 – a description of the Site and Proposed Development including information on construction timescales and alternatives;
 - Chapters 8 to 22 – preliminary assessments of the likely significant effects of the Proposed Development in relation to the environmental topics scoped into the EIA;
 - Chapter 23 – a summary of the likely significant effects on population and human health as identified in Chapters 8 to 22;
 - Chapter 24 – preliminary assessment of potential inter-relationships between the topics covered in Chapters 8 to 22 (combined effects), and between the Proposed Development and other planned developments in the surrounding area (cumulative effects); and



- Chapter 25 – a summary of the preliminary assessment of likely significant environmental effects.
- 1.6.3 Volumes II and III of the PEI Report comprise the figures and technical appendices that accompany each chapter of Volume I respectively.
- 1.6.4 Volume IV is a separate document has also been prepared to provide a non-technical summary (NTS) of this PEI Report.

1.7 Consultation

- 1.7.1 Consultation is integral to the preparation of DCO applications and to the EIA process. The views of consultation bodies and the local community serve to focus the environmental studies and to identify specific issues that require further investigation, as well as to inform aspects of the design of the Proposed Development. Consultation is an on-going process and the publication of this PEI Report forms an important part of that process.
- 1.7.2 The Act requires applicants for development consent to undertake formal (statutory) pre-application consultation on their proposals. There are a number of requirements as to how this consultation must be undertaken that are set out in the Act and related regulations, including:
- Section 42 requires the applicant to consult with ‘prescribed persons,’ which includes certain consultation bodies such as the Environment Agency, Marine Management Organisation and Natural England, relevant statutory undertakers, relevant local authorities, those with an interest in the land, as well as those who may be affected by the development;
 - Section 47 requires the applicant to consult with the local community on the development. Prior to this, the applicant must agree a Statement of Community Consultation (SoCC) with the relevant local authorities. The SoCC must set out the proposed community consultation and, once agreed with the relevant local authorities, a SoCC notice must be published in local newspapers circulating within the vicinity of the land in question. The consultation must then be undertaken in accordance with the final SoCC;
 - Section 48 places a duty on the applicant to publicise the proposed application in the ‘prescribed manner’ in a national newspaper, The London Gazette, local newspapers circulating within the vicinity of the land and certain marine publications; and
 - Section 49 places a duty on the applicant to take account of any relevant responses received to the consultation and publicity that is required by Sections 42, 47 and 48.
- 1.7.3 The Applicant informally consulted the local authorities in which the Proposed Development sits, namely Redcar and Cleveland and Stockton on Tees Borough Councils, and PINS prior to the submission of the EIA Scoping Report.



- 1.7.4 The Applicant is undertaking a formal Section 42 and Section 47 consultation (and issuing Section 48 notices), which will commence at the same time as the publication of this PEI Report.
- 1.7.5 The issues that have been raised through consultation and how these have been considered and addressed within the design evolution of the Proposed Development and the EIA will be set out in the ES.
- 1.7.6 The pre-application consultation undertaken by the Applicant will be documented within a Consultation Report that will form part of the DCO application. This will include a separate section on EIA related consultation as recommended within PINS Advice Note Fourteen: Compiling the Consultation Report (PINS, 2012).

1.8 References

Planning Inspectorate (2012). *Advice Note Fourteen: Compiling the Consultation Report*, Version 2, April 2012. Bristol: The Planning Inspectorate.

Planning Inspectorate (2017). *Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements*, Version 6, December 2017. Bristol: The Planning Inspectorate.