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Appendix 1A: Scoping Report

Appendix 1B: Scoping Opinion

Appendix 1C: Statement of Competence

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Rev: 0

1.0 INTRODUCTION

1.1 Background

- 1.1.1 This Environmental Statement (ES) has been prepared by AECOM Ltd (AECOM) on behalf of H2 Teesside Limited (the Applicant), a bp company, to accompany an application (the Application) being made to the Secretary of State (SoS) for the Department for Energy Security and Net Zero (DESNZ). The Applicant is seeking a Development Consent Order (DCO) for the construction, operation (including maintenance where relevant) and decommissioning of the H2Teesside Project (the Proposed Development).
- 1.1.2 The Proposed Development is an up to 1.2-Gigawatt Thermal (GWth) Carbon Capture and Storage (CCS) enabled Hydrogen Production Facility, associated connections, temporary construction compound areas and landscape / ecological areas, on land in Redcar and Cleveland, Stockton-on-Tees, and Hartlepool (hereafter referred to as the Proposed Development Site). Figure 1-1: Proposed Development Location (ES Volume II, EN070009/APP/6.3) shows the Proposed Development Site, the boundary of which represents the limits of the proposed DCO (the Order limits¹).
- 1.1.3 This ES reports the findings of an Environmental Impact Assessment (EIA) undertaken to identify the likely significant effects of the Proposed Development on the environment, and includes:
- a description of the Proposed Development;
 - the likely significant environmental effects of its construction, operation (including maintenance) and decommissioning based on the environmental information available at the time of writing;
 - the measures identified to avoid, prevent or reduce and, if possible, offset adverse effects; and
 - reasonable alternative sites, technologies and layouts considered to date, and an indication of the primary reasons for selecting the option chosen, taking into account the effects of the Proposed Development on the environment.
- 1.1.4 This ES also includes a Non-Technical Summary (NTS) (ES Volume IV, EN070009/APP/6.1) of the information provided in this ES. The NTS presents the key issues and findings of the EIA process in a non-technical, unbiased and easily accessible standalone document.
- 1.1.5 The Proposed Development Site and its surroundings are described in Chapter 3: Description of the Existing Environment (ES Volume I, EN070009/APP/6.2). A more detailed description of the Proposed Development is provided in Chapter 4: Proposed Development (ES Volume I, EN070009/APP/6.2).

¹ The Order Limits define the maximum area of land required temporarily and permanently to construct, operate, maintain and decommission the Proposed Development

1.2 The Applicant

1.2.1 The Applicant is H2 Teesside Limited, a bp company. H2 Teesside Limited will be the lead developer of the Proposed Development and bp will be appointed as the operator of the Proposed Development. The Proposed Development will support the decarbonisation of UK-produced natural gas in Teesside for use in industrial applications, thus helping to achieve national targets in relation to net zero. It will also be a key contributor to restoring manufacturing jobs in the Tees Valley.

1.3 The Proposed Development

1.3.1 The Proposed Development comprises the construction, operation (including maintenance) and decommissioning of an up to 1.2 GWth CCS enabled Hydrogen Production Facility with associated hydrogen transport pipeline network and utility connections, on land in Redcar and Cleveland, Stockton-on-Tees, and Hartlepool on Teesside.

1.3.2 The Proposed Development will export carbon dioxide (CO₂) to the Northern Endurance Partnership (NEP) offshore storage facility via NEP infrastructure on the adjacent Net Zero Teesside (NZN) site, including the high-pressure compression facility and the CO₂ export corridor. Development consent was granted for NZN on the 16 February 2024, and consultation for NEP (offshore) closed on 6 November 2023.

1.3.3 The Proposed Development comprises the Hydrogen Production Facility together with the hydrogen gas (H₂) pipeline corridor to deliver low carbon H₂ to offtakers² who may potentially use the H₂ in the future, and the CO₂ export, natural gas, electricity, water, oxygen (O₂) and nitrogen (N₂) connections required for the facility to operate. The Hydrogen Production Facility will produce low carbon H₂ which is compliant with the UK Government's Low Carbon H₂ Standard (DESNZ, 2023) which defines what constitutes low carbon H₂ up to the point of production. The intent of the standard is to ensure new low carbon H₂ production makes a direct contribution to the UK's greenhouse gas (GHG) emissions reduction targets.

1.3.4 The Proposed Development is subject to ongoing technical studies; however, it is expected to comprise the Hydrogen Production Facility with a design capacity of up to 1.2 GWth Lower Heating Value (LHV), across two phases of development (up to 600 Megawatt thermal (MWth) per phase).

1.3.5 The Hydrogen Production Facility and infrastructure associated with its operation will be located on the Main Site. The Main Site is proposed to be located on land formerly part of the Redcar Steelworks.

1.3.6 The Hydrogen Pipeline Corridor and other Gas Connection Corridors (the Connection Corridors) will cross other third-party land where required. Together, the land comprising of the Main Site, the Connection Corridors, temporary

² An offtaker refers to an entity or party that agrees to purchase and take delivery of a specified amount of energy (such as blue hydrogen in the case of this development) from a producer or supplier (the Applicant).

construction compound areas and landscape / ecological areas are referred to as the Proposed Development Site. These features are shown in the following areas:

- The Proposed Development Location is shown on Figure 1-1: Proposed Development Location (ES Volume II, EN070009/APP/6.3);
- The location of the Main Site, Hydrogen Pipeline Corridor and other Connection Corridors are shown on Figures 4-1 to 4-8 (ES Volume II, EN070009/APP/6.3);
- Construction compound areas are shown on Figure 5-1 (ES Volume II, EN070009/APP/6.3); and
- The landscape and ecological areas (including replacement land) are shown in the Outline Landscape and Biodiversity Management Plan (EN070009/APP/5.9).

1.4 The Development Consent Process

1.4.1 Under the Planning Act 2008 (PA 2008) (HM Government, 2008), development consent can be granted in the form of a DCO for certain types of Nationally Significant Infrastructure Projects (NSIPs) by the relevant SoS – in the case of energy infrastructure projects, this is the SoS for DESNZ.

1.4.2 However, the Proposed Development does not fall within any of the categories of NSIPs under section 14 of the PA 2008 as:

- gas production facilities are not mentioned as a category of NSIPs; and
- In respect of the Hydrogen Pipeline Corridor, further to the Energy Act 2023 and recent Government consultations, the Government intends that H₂ distribution will require a gas transporter licence. As such consideration needs to be given to the s.14 category of gas transporter pipe-lines, the criteria of which are defined by section 20 of the PA 2008. The Hydrogen Pipeline Corridor proposed as part of the Proposed Development does not meet those section 20 criteria.

1.4.3 It is noted that in the earlier stages of development of the Proposed Development, prior to the Government legislating the Energy Act 2023, the Applicant had also considered the section 14 category of "*construction of a pipe-line other than by a gas transporter*", being, pursuant to section 21 of the PA 2008, that which would require "*authorisation under ... the Pipe-Lines Act 1962*". According to the Pipe-Lines Act 1962 (HM Government, 1962), a cross-country pipeline means a pipeline whose length exceeds, or is intended to exceed 16.093 km (i.e. 10 miles). At that earlier stage, it was noted that it was likely that the Proposed Development's Hydrogen Pipeline Corridor would meet that distance threshold and thus could potentially be a NSIP, but that this was not definitive.

1.4.4 In light of this, and given the national significance of the Proposed Development and the desire to ensure that all aspects of the Proposed Development could be consented together the Applicant sought direction under Section 35 of the PA 2008 from the SoS for the Hydrogen Production Facility and the Hydrogen Pipeline Corridor (to the extent that the latter is not automatically a NSIP, which further to

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- the Energy Act 2023, is now the entire corridor) to be treated as development for which development consent is required.
- 1.4.5 On 22 December 2022, the SoS took the decision within the conditions as required by section 35A of the PA 2008 to issue a Direction in these terms. The other aspects of the Proposed Development are being brought forward as Associated Development to that development.
- 1.4.6 As a result of the above, the Applicant is required to obtain a DCO to authorise the Proposed Development under the PA 2008. Section 37 governs the form and content of the documents that are required as part of a DCO application. The requirements are implemented through the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the APFP Regulations) (HM Government, 2009), which, amongst other things, state that an application must be accompanied by an ES, where a development requires an EIA (also known as an EIA development) under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (as amended) (the EIA Regulations) (HM Government, 2017).
- 1.4.7 A DCO Application for the Proposed Development has been submitted to the Planning Inspectorate (the Inspectorate) who will examine the Application and make a recommendation to the SoS for DESNZ pursuant to the PA 2008, who will subsequently determine whether a DCO should be granted.
- 1.5 Environmental Impact Assessment and the Purpose of this Environmental Statement
- The Environmental Impact Assessment Scoping Process
- 1.5.1 On 30 March 2023, the Applicant notified the SoS in writing under regulation 8(1)(b) of the EIA Regulations that it intends to provide an ES in respect of the Proposed Development. The Proposed Development is EIA development for the purposes of the EIA Regulations and, as such, this ES accompanies this DCO Application.
- 1.5.2 The purpose of the EIA Scoping process was to determine which topics should be included in the EIA and the level of detail to which they should be assessed. The findings of the EIA Scoping process were reported in the EIA Scoping Report (Appendix 1A, ES Volume III, EN070009/APP/6.4), which identifies the priority matters to be considered as part of the EIA. It also identifies those matters, where possible, which do not need to be assessed in detail and can be scoped out. On 6 April 2023, a request for an EIA Scoping Opinion, along with the EIA Scoping Report for the Proposed Development as per regulation 10 of the EIA Regulations, was submitted to the Inspectorate.
- 1.5.3 The EIA Scoping Report presented within Appendix 1A (ES Volume III, EN070009/APP/6.4) was developed with reference to standard guidance and best practice. It was further informed by the EIA team's experience of working on similar projects. The EIA Scoping Report sets out:
- a plan sufficient to identify the land;
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- details of the Proposed Development and the Proposed Development Site;
 - a summary of alternatives considered;
 - a summary of existing and future baseline conditions;
 - an outline of the likely significant environmental effects of the Proposed Development;
 - a description of the matters proposed to be scoped in and out of the EIA;
 - proposed assessment methods; and
 - the proposed structure of the ES.

1.5.4 The Scoping Opinion was received from the Planning Inspectorate on 17 May 2023 and is presented within Appendix 1B (ES Volume III, EN070009/APP/6.4). The matters raised have been reviewed and are covered in full in the Consultation Report (EN070009/APP/5.1).

Preliminary Environmental Information

1.5.5 Following the completion of an EIA Scoping Report and the publication of the Scoping Opinion on the Inspectorate's website, statutory consultation was conducted, supported by a Preliminary Environmental Information (PEI) Report, which served as supporting environmental information regarding the Proposed Development, based on the preliminary environmental information available at the time of consultation.

1.5.6 A PEI Report was prepared to satisfy the requirements of regulation 12(2) of the EIA Regulations. In accordance with regulation 12(2)(b), the PEI Report presented "*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).*"

1.5.7 A statutory consultation seeks input from individuals, organisations, and the public on proposed developments. Consultees, including the public, stakeholders, and relevant experts, participate in these consultations, ensuring transparency and public involvement in decision-making.

1.5.8 To enable consultees to understand the likely environmental effects of the Proposed Development, the PEI Report presented preliminary findings of the environmental assessments undertaken at the time of writing. This allowed 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.

1.5.9 The PEI Report was published for statutory consultation on 14 September 2023 and the consultation period ended on 26 October 2023. A second statutory consultation was held between 13 December 2023 and 23 January 2024, and additional targeted Consultation was held between 9 February 2024 and 10 March 2024. The matters raised have been reviewed and an explanation of how the Applicant has had regard to them is set out in the Consultation Report (EN070009/APP/5.1).

The Environmental Statement

- 1.5.10 Following the statutory consultation, the ES was prepared, taking into consideration comments raised during consultation.
- 1.5.11 The ES has been prepared to satisfy the requirements of regulation 14(1) of the EIA Regulations and include the information stipulated in regulation 14(2) of the EIA Regulations.
- 1.5.12 Table 1-1 identifies where the information defined by regulation 14(2) can be found within this ES.

Table 1-1: Location of information required by regulation 14(2) within this Environmental Statement

SPECIFIED INFORMATION	LOCATION WITHIN ES REPORT
a) a description of the proposed development comprising information on the site, design, size and other relevant features of the development.	Chapter 3: Description of the Existing Environment, Chapter 4: Proposed Development, Chapter 5: Construction and Programme Management, and Chapter 6: Need, Alternatives and Design Evolution (ES Volume I, EN070009/APP/6.2), and supporting figures and (where relevant) appendices to these chapters in Volumes II and III.
b) a description of the likely significant effects of the proposed development on the environment.	Chapters 8 to 23 (Volume I, EN070009/APP/6.2), Impacts and Likely Significant Effects Section.
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.	Chapter 4: Proposed Development and Chapters 8 to 23 (Volume I, EN070009/APP/6.2), Proposed Development Design and Impact Avoidance and Essential 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.	Chapter 6: Need, Alternatives and Design Evolution (Volume I, EN070009/APP/6.2).
e) a non-technical summary of the information referred to in subparagraphs (a) to (d).	NTS (ES Volume IV, EN070009/APP/6.1).
f) any additional information specified in Schedule 4 relevant to the specific	Baseline conditions relevant to each assessment are described in Chapters 8 to 23, Baseline

SPECIFIED INFORMATION	LOCATION WITHIN ES REPORT
<p>characteristics of the particular development or type of development and to the environmental features likely to be significantly affected.</p>	<p>Conditions Sections (Volume I, EN070009/APP/6.2).</p> <p>Assessment methods are described in Chapter 2: Assessment Methodology and Chapters 8 to 23, Assessment Methodology and Significance Criteria Sections (Volume I, EN070009/APP/6.2).</p> <p>Any limitations and/or difficulties with the assessments are described in Chapters 8 to 23, Limitations or Difficulties Sections (Volume I, EN070009/APP/6.2).</p> <p>Reference lists detailing sources used are included at the end of each ES chapter.</p> <p>The assessment of cumulative effects is presented in Chapter 23: Cumulative and Combined Effects (Volume I, EN070009/APP/6.2).</p> <p>The assessment of major accidents is presented in Chapter 20: Major Accidents and Disasters (Volume I, EN070009/APP/6.2).</p> <p>As per ID 2.2.3 of the Scoping Opinion (Appendix 1.B: Scoping Opinion, Volume III, EN070009/APP/6.4) Transboundary Effects have been screened out of this ES.</p>

1.6 Structure of this Environmental Statement

1.6.1 The structure of this ES reflects that proposed in the EIA Scoping Report and covers the assessment topics agreed through the EIA Scoping process.

1.6.2 Volume I of the ES is structured into chapters as follows:

- Chapter 1: an introduction to the ES;
- Chapter 2: the EIA methodology and approach;
- Chapter 3: a description of the existing environment;
- Chapter 4: a description of the Proposed Development Site and Proposed Development;
- Chapter 5: information on construction and programme management;
- Chapter 6: information on the alternatives and design evolution;
- Chapter 7: a description of relevant legislation and planning policy;
- Chapters 8 – 22: assessments of the likely significant effects of the Proposed Development (taking into account any mitigation measures proposed) in relation to the environmental topics scoped into the EIA;

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- Chapter 23: assessment of potential interrelationships between the topics covered in Chapters 8 – 22 (combined effects) and between the Proposed Development and other planned developments in the vicinity of the Proposed Development Site (cumulative effects); and
 - Chapter 24: a summary of the identified likely significant effects.
- 1.6.3 Volumes II and III of the ES comprise the figures and technical appendices that accompany and support the content of Volume I.
- 1.6.4 Volume IV is a separate, standalone document that has been prepared to provide a NTS of the ES.
- 1.6.5 A number of other documents have been prepared as per the Application Guide (EN070009/APP/1.2), which form part of this DCO Application and should be read in conjunction with this ES.
- 1.7 Consultation
- 1.7.1 Consultation has been integral to the preparation of the DCO Application and the EIA process. The views of the statutory consultation bodies, stakeholders and the local community have served to focus the environmental assessments and to identify specific issues that require further investigation, as well as to inform aspects of the design of the Proposed Development. Consultation has been an iterative process, and the publication of the PEI Report formed an important part of that process.
- 1.7.2 The PA 2008 requires DCO applicants to undertake statutory consultation on their proposals. There are a number of requirements as to how this consultation must be undertaken that are set out in the PA 2008 and related regulations, including:
- Section 42 of the PA 2008 requires the Applicant to consult with prescribed persons, which includes certain consultation bodies such as the Environment Agency (EA), Marine Management Organisation (MMO) 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 Proposed Development and who are therefore able to make what is called a “relevant claim”.
 - Section 47 of the PA 2008 requires the Applicant to consult with the local community regarding the Proposed 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 (i.e. within the vicinity of the Proposed Development Site). The consultation must then be undertaken in accordance with the agreed SoCC.
 - Section 48 of the PA 2008 places a duty on the Applicant to publicise the Application in the prescribed manner in a national newspaper, The London Gazette, local newspapers circulating within the vicinity of the land (i.e. within

the vicinity of the Proposed Development Site), and certain marine publications. In addition, the EIA Regulations require certain prescribed consultees to be sent a copy of the Section 48 notice.

- Section 49 of the PA 2008 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 has engaged with the Inspectorate and with the local authorities in which the Proposed Development Site sits, namely Redcar and Cleveland Borough Council (RCBC), Stockton-on-Tees Borough Council (STBC), and Hartlepool Borough Council (HBC) over the development of the Proposed Development to date. Engagement with local authorities has included submission of a data request to the Lead Local Flood Authorities (LLFA) the EA and Natural England and contact with relevant representatives from the local authorities to agree representative viewpoint locations and noise and air quality monitoring locations.
- 1.7.4 The Applicant has also undertaken informal engagement with the EA, RSPB, and Natural England to discuss data requests, design options and mitigation measures.
- 1.7.5 The Applicant undertook formal Section 42 and Section 47 consultation (including agreeing a SoCC with the local authorities and issuing Section 48 notices) which ended on 26 October 2023. A second statutory consultation was held between 13 December 2023 and 23 January 2024, and additional targeted consultation was held between 9 February 2024 and 10 March 2024.
- 1.7.6 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 process are set out within Chapter 6: Need, Alternatives and Design Evolution (ES Volume I, EN070009/APP/6.2) and Chapters 8 to 23 (ES Volume I, EN070009/APP/6.2) where relevant.
- 1.7.7 A description of the statutory consultation undertaken by the Applicant is documented within the Consultation Report (EN070009/APP/5.1). This report includes a separate section on EIA related consultation, as recommended within the Inspectorate's Advice Note Fourteen: Compiling the Consultation Report (Planning Inspectorate, 2021).
- 1.8 Relevant Expertise and Qualifications
- 1.8.1 A statement of the relevant expertise and qualifications of each of the contributors to the ES is required by Regulation 14(4)(b) of the EIA Regulations. This is provided in Appendix 1C: Statement of Competence (ES Volume III, EN070009/APP/6.4).

1.9 References

- Department for Energy Security and Net Zero (DESNZ) (2023). *UK Low Carbon Hydrogen Standard: Guidance on the greenhouse gas emissions and sustainability criteria*, Version 2.
- HM Government (1962). *Pipe-Lines Act 1962*.
- HM Government (2008). *Planning Act 2008*.
- HM Government (2009). *The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009*.
- HM Government (2017). *The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017*.
- The Planning Inspectorate (2021). *Advice Note Fourteen: Compiling the Consultation Report*.