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## 1.0 INTRODUCTION

### 1.1 Background

1.1.1 This Preliminary Environmental Information (PEI) Report has been prepared by AECOM Ltd (AECOM) on behalf of SSE Generation Ltd ('The Applicant'). It supports 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 and maintenance of a proposed low carbon Combined Cycle Gas Turbine (CCGT) Generating Station ('the Proposed Development') on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe DN17 3EF (the 'Proposed Development Site').

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 PEI 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. The Applicant will consider feedback on the PEI Report and opportunities for the design of the Proposed Development and the EIA to take into consideration any comments received through this consultation.

1.1.4 The location of the Proposed Development Site is shown in **Figure 1.1: Site Location Plan** (PEI Report, Volume III). The Proposed Development 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: The Proposed Development** (PEI Report, Volume I).

### 1.2 The Applicant

1.2.1 The Applicant is part of the FTSE-listed SSE plc, one of the UK's largest and broadest-based energy companies, and the country's leading generator of renewable energy. Over the last 20 years, the SSE Group has invested over £20bn to deliver industry-leading offshore wind, onshore wind, CCGT, energy from-waste, biomass, energy networks and gas storage projects. The Applicant owns and operates the adjacent Keadby 1 Power Station and is in the process of constructing Keadby 2 Power Station. SSE Renewables also operates the Keadby Windfarm which lies to the north and south of the Proposed Development Site and generates renewable energy from 34 turbines, with a total installed generation capacity of 68MW.

1.2.2 The Applicant has produced a 'Greenprint' document (SSE, 2020) that sets out a clear commitment to investment in low carbon power infrastructure, working with government and other stakeholders to create a net zero power system by 2040. This includes investment in flexible sources of electricity generation and storage for times of low renewable output which will complement other renewable generating sources, either using low-carbon fuels and/ or capturing and storing carbon emissions.

- 1.2.3 The design of the Proposed Development demonstrates this commitment. The Proposed Development will be built with a clear route to decarbonisation, being equipped with post-combustion carbon capture technology, consistent with SSE's commitment to reduce carbon emissions by 50% by 2030, based on a 2018 baseline.

### 1.3 The Proposed Development

- 1.3.1 The Proposed Development comprises the construction, operation and maintenance of a low carbon CCGT generating station with a capacity of up to 910MW gross electrical output.
- 1.3.2 The CCGT generating station will be fuelled by natural gas, with post-combustion carbon capture and compression plant (CCP) installed such that the plant can be operated as a dispatchable low carbon generating station. The Proposed Development therefore incorporates equipment required for the capture and compression of carbon dioxide (CO<sub>2</sub>) emissions from the generating station for onward transport by a pipeline to be developed by the Zero Carbon Humber (ZCH) Partnership for subsequent compression and transport to an offshore geological storage site to be developed by the Northern Endurance Partnership.
- 1.3.3 The Applicant will be responsible for the construction, operation (including maintenance) and decommissioning of the Proposed Development including the equipment required on-site for the capture of CO<sub>2</sub> emissions from the generating station. The ZCH Partnership would be responsible for the construction, operation and decommissioning of the CO<sub>2</sub> gathering network from onshore industrial facilities including the Proposed Development in the Humber Region. The CO<sub>2</sub> export pipeline will not form part of this DCO Application but will be the subject of separate consent applications by third parties. However, an indication of likely cumulative effects is considered in this PEI Report. The Applicant would not build or operate the CCGT without the CCP as the Applicant is fully committed to building a generating station which has a clear route to decarbonisation.
- 1.3.4 A detailed description of the Proposed Development is set out in **Chapter 4**: The Proposed Development of this PEI Report. At this stage in the development of the Project, the vendor selection cannot yet be made, as it will be determined by various technical and economic considerations and will be influenced by future UK Government policy. The design of the Proposed Development, therefore, incorporates a necessary degree of flexibility, to allow for the future selection of the preferred technology in the light of prevailing policy and market conditions once a DCO is granted.

### 1.4 The Development Consent Process

- 1.4.1 The Proposed Development falls within the definition of a 'nationally significant infrastructure project' (NSIP) under Section 14(1)(a) and 15(2) of the Planning Act 2008 (hereafter referred to as 'the 2008 Act') as a 'generating station exceeding 50 MW'.
- 1.4.2 As a NSIP project, the Applicant is required to seek a Development Consent Order (DCO) to construct and operate the generating station, under Section 31 of the 2008 Act. Section 37 of the 2008 Act also governs the form, content and accompanying 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) ('APFP Regulations') which state that an application must be accompanied by an ES, where a development is considered to be 'EIA development' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations).

- 1.4.3 An application for development consent for the Proposed Development will be submitted to the Planning Inspectorate (PINS) acting on behalf of the Secretary of State. 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 Secretary of State, who will then decide whether to grant a DCO.

## 1.5 Environmental Impact Assessment (EIA) and the Purpose of the Preliminary Environmental Information (PEI) Report

- 1.5.1 The Proposed Development is a 'Schedule 1' development under the EIA Regulations as it constitutes a 'Thermal power station and other combustion installations with a heat output of 300 megawatts or more'. As such, an EIA is required for the Proposed Development and an Environmental Statement (ES) must be prepared in accordance with these Regulations to accompany the Application.
- 1.5.2 The Applicant has notified the Secretary of State 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 therefore 'EIA development' for the purposes of the EIA Regulations and an ES will form part of the Proposed Application.

### The EIA Scoping Process

- 1.5.3 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 15 May 2020.
- 1.5.4 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.
- 1.5.5 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.
- 1.5.6 The Secretary of State's Scoping Opinion was received by the Applicant on 25 June 2020 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 as described in **Appendix 1C** (PEI Report Volume III). Further details on the EIA Scoping Opinion are set out in **Chapter 2: Assessment Methodology** (PEI Report Volume I).

The PEI Report

- 1.5.7 PEI is defined in the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) as:
- ‘information referred to in regulation 14(2) which
    - (a) has been compiled by the applicant; and
    - (b) 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).’
- 1.5.8 Following the completion of an EIA Scoping Report and publication of Secretary of State’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 subsequently
  - an ES is prepared to accompany the Application.
- 1.5.9 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.
- 1.5.10 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	<b>Chapter 3:</b> The Site and Surrounding Area; <b>Chapter 4:</b> The Proposed Development; <b>Chapter 5:</b> Construction Programme and Management; and <b>Chapter 6:</b> Consideration of Alternatives, of Volume I 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 <b>Chapters 8 - 19</b> , ‘Likely Impacts and Effects’ sections.

Specified Information	Location Within PEI Report
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 <b>Chapter 4</b> : The Proposed Development and <b>Chapters 8 - 19</b> , '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 <b>Chapter 6</b> : Consideration of Alternatives.
e) a non-technical summary of the information referred to in subparagraphs (a) to (d)	Non-Technical Summary (NTS).
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	<p>Baseline conditions relevant to each assessment are described in Volume I <b>Chapters 8- 19</b>, 'Baseline Conditions' sections.</p> <p>Assessment methods are described in Volume I <b>Chapter 2</b>: Assessment Methodology and <b>Chapters 8 - 19</b>, 'Assessment Methodology and Significance Criteria' sections</p> <p>Any limitations and/ or difficulties with the assessments are described in Volume I <b>Chapters 8 - 19</b>, 'Limitations or Difficulties' sections.</p>

1.5.11 PINS Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements (PINS, 2020) 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.'

1.5.12 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.

1.5.13 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.

1.5.14 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 available at the time of writing on likely construction methods, timescales and alternatives;
- Chapters 8 to 18 – preliminary assessments of the likely significant effects of the Proposed Development in relation to the environmental topics scoped into the EIA; and
- Chapter 19 – preliminary assessment of potential inter-relationships between the topics covered in Chapters 8 to 18 (combined effects), and between the Proposed Development and other planned developments in the surrounding area (cumulative effects).

1.6.3 Volumes II and III of the PEI Report comprise the technical appendices and figures that accompany each chapter of Volume I.

1.6.4 A separate document has also been prepared to provide a 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 ongoing process and the publication of this PEI Report forms an important part of that process.

1.7.2 The 2008 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 Proposed 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 As required under Regulation 12 of the EIA Regulations, the SoCC must also set out how the PEI Report will be consulted on.

1.7.4 The Applicant is adopting a two-part approach to pre-application consultation on the Proposed Development. An informal, non-statutory consultation was carried out between 22 June – 3 August 2020 as well as this Stage 2 (statutory) consultation, which runs between 25 November and 20 January 2021.

1.7.5 Formal statutory guidance was issued on 22 July by the UK government regarding pre-application consultation, publicity requirements and Statement of Community Consultation (SoCC) preparation for NSIP during the COVID-19 pandemic. The guidance describes the temporary changes to certain publicity requirements that have been introduced through the Infrastructure Planning (Publication and Notification of Applications etc.) (Coronavirus) (Amendment) Regulations 2020 which came into force on 22 July 2020. This guidance was published at a late stage during the Applicant’s non-statutory consultation and has guided the Applicant’s statutory pre application consultation.

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 will be set out in the ES.

1.7.7 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 Statement of Competence**

1.8.1 As required under Regulation 14(4)(b) of the EIA Regulations, an ES must be accompanied by a statement outlining the relevant expertise or qualifications of those



involved in its preparation. A statement of competence of the EIA coordinators and the technical specialists that have provided expert input to the PEI Report is included as **Appendix 1C** (PEI Report Volume III).

## 1.9 References

HM Government (2017) *The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017*.

HM Government (2008) *The Planning Act 2008*.

HM Government (2009) *Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended)*.

Planning Inspectorate (2017) *Advice Note Seven: Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements, Version 7, June 2020*.

Ministry of Housing, Communities and Local Government (2020) *Guidance on Procedural Requirements for Major Infrastructure Projects, July 2020*.

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

Planning Inspectorate (2017) *Planning Inspectorate Advice Note Seven (Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping). Version 6 December 2017*.