KEADBY
NEXT GENERATION
POWER STATION
Hydrogen-enabled flexible power

A collaboration between SSE Thermal and Equinor

The Keadby Next Generation Power Station Project

Document Ref: 5.7

Planning Inspectorate Ref: EN0110001

The Keadby Next Generation Power Station Development Consent Order [year]

Potential Main Issues for Examination

The Planning Act 2008

The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – Regulation 5(2)(q)

Applicant: Keadby Next Generation Limited

Date: August 2025

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1. Introduction

1.1.1 This Potential Main Issues for Examination ('PMIE') document (**Application Document Ref 5.7**) has been prepared by Keadby Next Generation Limited ('the Applicant') which is a subsidiary of SSE plc. It forms part of the application for a Development Consent Order (DCO) ('the Application'), that has been submitted to the Secretary of State (SoS) for Energy Security and Net Zero under Section 37 of 'The Planning Act 2008'.

1.1.2 The Applicant is seeking development consent for the construction, operation and maintenance of a new combined cycle gas turbine ('CCGT') electricity generating station on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe DN17 3EF ('the Site').

1.1.3 The Keadby Next Generation Power Station ('the Proposed Development') is a new CCGT electricity generating station with a capacity of up to 910MW electrical output. The CCGT electricity generating station will be designed to run on 100% hydrogen and able to run on 100% natural gas or a blend of natural gas and hydrogen and will be located on land to the west of Keadby 1 and Keadby 2 power stations. The Proposed Development includes connections for cooling water, electricity, hydrogen, natural gas, and construction laydown areas and other associated development. It is described in full in **Environmental Statement ('ES') Volume I Chapter 4**: **The Proposed Development** (**Application Document Ref. 6.2.4**).

1.2. The Purpose and Structure of this Document

1.2.1 This document has been prepared and submitted in compliance with the Nationally Significant Infrastructure Projects: 2024 Pre-application Prospectus (June 2025) and Regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 ('the APFP Regulations') which states: "The application must be accompanied by… any other documents considered necessary to support the application".

1.2.2 The purpose of this document is to provide the Examining Authority '('ExA)' with a summary of the main residual issues at the time of the DCO Application submission. The issues set out in the below tables do not constitute a definitive list of matters likely to be raised during the DCO Examination and does not preclude stakeholders from raising further concerns during the planning process.

1.2.3 It is anticipated that the issues outlined in this document may be resolved once stakeholders have had an opportunity to review the DCO Application and it is the

Applicant's intention to continue to work with stakeholders throughout the DCO Examination to resolve issues wherever possible.

1.3. Potential Main Issues for Examination

1.3.1 Table 2.1 in Section 2 below, sets out the main residual issues prior to submission of the DCO Application. Table 2.1 provides an overview of the issues held by the statutory bodies and local authorities, where this issue is addressed in the DCO Application and the Applicant's position on the likelihood of the issue being resolved prior to or during the Examination. The table includes a Red/Amber/Green ('RAG') rating to highlight the likelihood of each issue being resolved with the following definition applied to each colour:

- Red - Unlikely to be resolved during the Examination stage
- Amber - Potential for matters to be resolved during the Examination stage
- Green - The Applicant has identified a way to resolve this issue and this is likely to be resolved early during the Examination.

2. Potential Main Issues for Examination

Table 2.1 Potential Main Issues for Examination

Ref	Description of issue	Affected stakeholder(s)	Signposting (to application evidence)	RAG	Likelihood of the issue being resolved during the Examination
1	**Fuel for the Proposed Development** Although the Proposed Development will be designed to run on 100% hydrogen (and able to run on 100% natural gas or a blend of natural gas and hydrogen), the application is being brought forward to act as an enabler for the development of hydrogen production and supply infrastructure and is therefore being submitted in advance of a hydrogen supply being available, so the Proposed Development will likely need to operate initially on natural gas. The Proposed Development will provide an end-user for a future hydrogen supply, providing certainty and confidence to investors in that enterprise. The Proposed Development is aligned with government policy (set out in NPS EN-1) to establish a hydrogen economy and will support the delivery of critical national priority infrastructure, specifically low-carbon electricity generation and hydrogen distribution infrastructure. The Applicant's environmental assessments have considered a range of potential operating scenarios over the full lifetime of the plant, from a scenario of 100% hydrogen fuel from year 1, while also responding to the Planning Inspectorate's request in the Scoping Opinion to present "the worst case scenario for each use of fuel option". The Proposed Development has been demonstrated to be compliant with the current decarbonisation readiness requirements (the Carbon Capture Readiness requirements) and the Applicant is also designing the Proposed Development to comply with the forthcoming Decarbonisation Readiness requirements that come into force in March 2026 via the environmental permitting regime.	Secretary of State DESNZ Environment Agency	Planning Statement (**Application Document Ref. 5.5)** ES Volume I, Chapter 4 The Proposed Development (**Application Document Ref. 6.2.4**) ES Volume I, Chapter 7 Legislation and Planning Policy (**Application Document Ref. 6.2.7**) ES Volume I, Chapter 8 Air Quality (**Application Document ref. 6.2.8**) ES Volume I, Chapter 14 Landscape and Visual Amenity (**Application Document ref. 6.2.14**) ES Volume I, Chapter 18 Climate Change (**Application Document Ref. 6.2.18**) Greenhouse Gas Reduction Statement (**Application Document Ref. 7.8**) Carbon Capture Readiness Statement (**Application Document Ref. 5.9**)		High

2	**Landscape** The LVIA (ES Chapter 14, Document Ref. 6.2.14) identifies significant adverse effects on visual amenity from three viewpoints. These cannot be mitigated due to the height and massing of the structures associated with the Proposed Development, noting that the massing is less than that of the already consented Keadby CCS Power Station that is consented for a similar location within the Keadby Power Station site. Community consultation has identified a potential concern regarding the impact of the proposed power station on local views. NPS EN-1 confirms that 'limited weight' should be given to the visibility of an energy NSIP where the location is acceptable and efforts have been made to achieve good design. The Applicant's position is that the adverse effects of the proposal on the landscape and visual amenity are outweighed in the planning balance by the project's benefits.	North Lincolnshire Council	Planning Statement (**Application Document Ref. 5.5**), in particular sections 4.3, 5.3 and 5.4. ES Volume I, Chapter 14 Landscape and Visual Amenity (**Application Document ref. 6.2.14**)		High
3	**Loss of irreplicable habitats** The proposal may result in the loss of irreplaceable habitats, specifically, two likely veteran and two likely ancient goat willow trees. Compensatory planting and wider biodiversity enhancement measures are included within the Proposed Development.	Natural England North Lincolnshire Council	Planning Statement **(Application Document Ref. 5.5)** ES Volume I, Chapter 11 Biodiversity, Ecology and Nature Conservation **(Application Document Ref. 6.2.11)** Outline Landscape and Biodiversity Management and Enhancement Plan Report **(Application Document Ref. 5.10)**		High
4	**Flood Risk** The Proposed Development site is almost entirely within Flood Zone 3, where there is indicated to be a high probability of flooding, though this classification is without reference to existing flood defences. It is not possible to locate the Proposed Development in an area at lower risk of flooding and therefore the Sequential Test is passed. The Proposed Development also	Environment Agency North Lincolnshire Council	ES Volume I, Chapter 12 Water Environment and Flood Risk **(Application Document Ref. 6.2.12)** Planning Statement (**Application Document Ref. 5.5)**		High

	passes the Exception Test because (i) it would bring wider sustainability benefits (including support for decarbonising the electricity grid) and (ii) it will be safe from flooding, without increasing flood risk elsewhere, for the lifetime of the development.	Isle of Axholme and North Nottinghamshire Water Level Management Board	ES Volume II, Appendix 12A Flood Risk Assessment **(Application Document Ref. 6.3.16)**		
5	**Air quality** Impact upon air quality could arise through construction activities and consequent dust emissions, or through emissions arising from construction road traffic. Effects are proposed to be controlled through appropriate construction management plans. Operational emissions would principally arise through combustion of gaseous fuels. Effects are anticipated to be insignificant through the design of the Proposed Development, use of appropriate stack height, and regulation of the operational facility by the Environment Agency through an environmental permit.	Secretary of State Natural England Environment Agency North Lincolnshire Council	ES Volume I, Chapter 8 Air Quality **(Application Document Ref. 6.2.12)** Greenhouse Gas Reduction Statement **(Application Document Ref. 7.8)** Outline Construction Environment Management Plan (CEMP) **(Application Document Ref. 7.4)** Outline Construction Traffic Management Plan **(Application Document Ref. 7.5)** Outline Construction Workers Travel Plan **(Application Document Ref. 7.6)**		High
6	**Noise** There is the potential for noise and vibration effects upon local Noise Sensitive Receptors (including residential properties and Keadby Lock) during construction, operation and decommissioning of the Proposed Development. Mitigation would reduce these impacts to levels assessed within the Environmental Statement as not significant.	Secretary of State North Lincolnshire Council Canal and River Trust	ES Volume I, Chapter 9 Noise and Vibration **(Application Document Ref. 6.2.9)** Outline Construction Environment Management Plan (CEMP) **(Application Document Ref. 7.4)** Statutory Nuisance Statement **(Application Document Ref. 5.3)**		High