

# KEADBY 3 CARBON CAPTURE POWER STATION

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A collaboration between **SSE Thermal** and **Equinor**

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**The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order**

**Land at and in the vicinity of the Keadby Power Station site, Trentside, Keadby, North Lincolnshire**

**Statement of Commonality of Statements  
of Common Ground (Deadline 6a Version)**

**The Planning Act 2008**

**Applicant: Keadby Generation Limited**

**Date: April-May 2022**

## DOCUMENT HISTORY

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## GLOSSARY

<b>Abbreviation</b>	<b>Description</b>
AGI	Above Ground Installation
AIL	Additional Abnormal Indivisible Load
CCGT	Combined Cycle Gas Turbine
CCP	Carbon Dioxide Capture Plant
CCUS	Carbon Capture, Usage and Storage
DCO	Development Consent Order
HP	High Pressure
ES	Environmental Statement
ExA	Examining Authority: An inspector or panel of inspectors appointed to examine the application
HRSG	Heat Recovery Steam Generator
MW	megawatts
NELC	North Lincolnshire Council
NSIP	Nationally Significant Infrastructure Project: for which a DCO is required
PA 2008	Planning Act 2008
PCC	Proposed Power and Carbon Capture
PINS	Planning Inspectorate
RDF	Refuse Derived Fuel
SHBEC	South Humber Bank Energy Centre
SHBPS	South Humber Bank Power Station
SoCG	Statement of Common Ground

Abbreviation	Description
SoS	Secretary of State
ZCH	Zero Carbon Humber

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## CONTENTS

1.0	Introduction.....	4
1.1	Overview .....	4
1.2	The Proposed Development.....	4
1.3	The Proposed Development Site.....	7
1.4	The Proposed Development Changes.....	8
1.5	The Development Consent Process.....	109
1.6	The Purpose and Structure of this Document.....	109
2.0	List of SoCG Parties.....	11
3.0	Summary of Current status of socgs .....	12
4.0	Commonality .....	14

## TABLES

Table 2.1:	List of SoCG Parties.....	1140
Table 3.1:	Current Status of SoCGs.....	1244
Table 4.1:	Table of Commonality at Deadline .....	<b>Error! Bookmark not defined.</b> 14

## 1.0 INTRODUCTION

### 1.1 Overview

- 1.1.1 This Statement of Commonality of Statements of Common Ground (**Application Document Ref. 9.5**) has been prepared on behalf of Keadby Generation Limited ('the Applicant'). It forms part of 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, under Section 37 of 'The Planning Act 2008' (the '2008 Act').
- 1.1.2 The Applicant is seeking development consent for the construction, operation and maintenance of a new 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').
- 1.1.3 The Proposed Development is a new electricity generating station of up to 910 megawatts (MW) gross electrical output, equipped with carbon capture and compression plant and fuelled by natural gas, on land to the west of Keadby 1 Power Station and the (under commissioning) Keadby 2 Power Station, including connections for cooling water, electrical, gas and utilities, construction laydown areas and other associated development. It is described in Chapter 4: The Proposed Development of the Environmental Statement (ES) (ES Volume I – APP-047).
- 1.1.4 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 2008 Act, as it is an onshore generating station in England that would have a generating capacity greater than 50MW electrical output (50MWe). As such, a DCO application is required to authorise the Proposed Development in accordance with Section 31 of the 2008 Act.
- 1.1.5 The DCO, if made by the SoS, would be known as 'The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order' ('the Order').

### 1.2 The Proposed Development

- 1.2.1 The Proposed Development will work by capturing carbon dioxide emissions from the gas-fired power station and connecting into the Humber Low Carbon Pipelines project pipeline network, being promoted by NGCL, for onward transportation to the Endurance storage site under the North Sea.
- 1.2.2 The Proposed Development would comprise a low carbon gas fired power station with a gross electrical output capacity of up to 910MWe and associated buildings, structures and plant and other associated development defined in Schedule 1 of the draft DCO (APP-005) as Work No. 1 – 11 and shown on the Works Plans (APP-012).

1.2.3 At this stage, the final technology 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 and regulation. The design of the Proposed Development therefore incorporates a necessary degree of flexibility to allow for the future selection of the preferred technology in light of prevailing policy, regulatory and market conditions once a DCO is made.

1.2.4 The Proposed Development will include:

- a carbon capture equipped electricity generating station including a CCGT plant (**Work No. 1A**) with integrated cooling infrastructure (**Work No. 1B**), and carbon dioxide capture plant (CCP) including conditioning and compression equipment, carbon dioxide absorption unit(s) and stack(s) (**Work No. 1C**), natural gas receiving facility (**Work No. 1D**), supporting uses including control room, workshops, stores, raw and demineralised water tanks and permanent laydown area (**Work No. 1E**), and associated utilities, various pipework, water treatment plant, wastewater treatment, firefighting equipment, emergency diesel generator, gatehouse, chemical storage facilities, other minor infrastructure and auxiliaries/ services (all located in the area referred to as the 'Proposed Power and Carbon Capture (PCC) Site' and which together form **Work No. 1**);
- natural gas pipeline from the existing National Grid Gas high pressure (HP) gas pipeline within the Proposed Development Site to supply the Proposed PCC Site including an above ground installation (AGI) for National Grid Gas's apparatus (**Work No. 2A**) and the Applicant's apparatus (**Work No. 2B**) (the 'Gas Connection Corridor');
- electrical connection works to and from the existing National Grid (National Grid Electricity Transmission) 400kV Substation for the export of electricity (**Work No. 3A**) (the 'Electrical Connection Area to National Grid 400kV Substation');
- electrical connection works to and from the existing Northern Powergrid 132kV Substation for the supply of electricity at up to 132kV to the Proposed PCC Site, and associated plant and equipment (**Work No. 3B**) (the 'Potential Electrical Connection to Northern Powergrid 132kV Substation');
- Water Connection Corridors to provide cooling and make-up water including:
  - underground and/or overground water supply pipeline(s) and intake structures within the Stainforth and Keadby Canal, including temporary cofferdam (**Work No. 4A**) (the 'Canal Water Abstraction Option');
  - in the event that the Canal Water Abstraction Option is not available, works to the existing Keadby 1 power station cooling water supply pipelines and intake structures within the River Trent, including temporary cofferdam (**Work No. 4B**) (the 'River Water Abstraction Option'); and

- works to and use of an existing outfall and associated pipework for the discharge of return cooling water and treated wastewater to the River Trent (**Work No. 5**) (the 'Water Discharge Corridor');
- towns water connection pipeline from existing water supply within the Keadby Power Station for potable water (**Work No. 6**);
- above ground carbon dioxide compression and export infrastructure comprising an above ground installation (AGI) for the undertaker's apparatus including deoxygenation, dehydration, staged compression facilities, outlet metering, and electrical connection (**Work No. 7A**) and an AGI for NGCL apparatus (**Work No. 7B**);
- new permanent access from the A18, comprising the maintenance and improvement of an existing private access road from the junction with the A18 including the western private bridge crossing of the Hatfield Waste Drain (**Work No. 8A**) and installation of a layby and gatehouse (**Work No. 8B**), and an emergency vehicle and pedestrian access road comprising the maintenance and improvement of an existing private track running between the Proposed PCC Site and Chapel Lane, Keadby and including new private bridge (**Work No. 8C**);
- temporary construction and laydown areas including contractor facilities and parking (**Work No. 9A**), and access to these using the existing private roads from the A18 and the existing private bridge crossings, including the replacement of the western existing private bridge crossing known as 'Mabey Bridge' over Hatfield Waste Drain (**Work No. 9B**) and a temporary construction laydown area associated with that bridge replacement (**Work No. 9C**);
- temporary retention, improvement and subsequent removal of an existing Additional Abnormal Indivisible Load Haulage Route (**Work No. 10A**) and temporary use, maintenance, and placement of mobile crane(s) at the existing Railway Wharf jetty for a Waterborne Transport Offloading Area (**Work No. 10B**);
- landscaping and biodiversity enhancement measures (**Work No. 11A**) and security fencing and boundary treatments (**Work No. 11B**); and
- minor associated development.

1.2.5 The Proposed Development includes the equipment required for the capture and compression of carbon dioxide emissions from the generating station so that it is capable of being transported off-site. NGCL will be responsible for the development of the carbon dioxide pipeline network linking onshore power and industrial facilities, including the Proposed Development, in the Humber Region. The carbon dioxide export pipeline does not, therefore, form part of the Proposed Development and is not included in the Application but will be the subject of separate consent application(s) to be taken forward by NGCL.

- 1.2.6 The Proposed Development is designed to be capable of operating 24 hours per day, 7 days a week, with plant operation dispatchable to meet electricity demand and with programmed offline periods for maintenance. It is anticipated that in the event of CCP maintenance outages, for example, it could be necessary to operate the Proposed Development without carbon capture, with exhaust gases from the CCGT being routed via the Heat Recovery Steam Generator (HRSG) stack.
- 1.2.7 Various types of associated and ancillary development further required in connection with and subsidiary to the above works are detailed in Schedule 1 'Authorised Development' of the draft DCO (APP-005). This, along with Chapter 4: The Proposed Development in the ES Volume I (APP-047), provides further description of the Proposed Development. The areas within which each numbered Work (component) of the Proposed Development are to be built are defined by the coloured and hatched areas on the Works Plans (APP-012).

### 1.3 The Proposed Development Site

- 1.3.1 The Proposed Development Site (the 'Order Limits') is located within and near to the existing Keadby Power Station site near Scunthorpe, Lincolnshire and lies within the administrative boundary of North Lincolnshire Council (NLC). The majority of land is within the ownership or control of the Applicant (or SSE associated companies) and is centred on national grid reference 482351, 411796.
- 1.3.2 The existing Keadby Power Station site currently encompasses the operational Keadby 1 and Keadby 2 Power Station (under commissioning) sites, including the Keadby 2 Power Station Carbon Capture and Readiness reserve space.
- 1.3.3 The Proposed Development Site encompasses an area of approximately 69.4 hectares (ha). This includes an area of approximately 18.7ha to the west of Keadby 2 Power Station in which the generating station (CCGT plant, cooling infrastructure and CCP) and gas connection will be developed (the Proposed PCC Site).
- 1.3.4 The Proposed Development Site includes other areas including:
- a high pressure gas pipeline to supply the CCGT including a gas compound for NGG apparatus and a gas compound for the Applicant's apparatus;
  - the National Grid 400kV Substation located directly adjacent to the Proposed PCC Site, through which electricity generated by the Proposed Development will be exported;
  - Emergency Vehicle Access Road and Potential Electrical Connection to Northern Powergrid Substation;
  - Water Connection Corridors:



- Canal Water Abstraction Option which includes land within the existing Keadby Power Station site with an intake adjacent to the Keadby 2 Power Station intake and pumping station and interconnecting pipework;
- River Water Abstraction Option which includes a corridor that spans Trent Road and encompasses the existing Keadby Power Station pumping station, below ground cooling water pipework, and infrastructure within the River Trent; and
- a Water Discharge Corridor which includes an existing discharge pipeline and outfall to the River Trent and follows a route of an existing easement for Keadby 1 Power Station;
- an existing river wharf at Railway Wharf (the Waterborne Transport Offloading Area) and existing temporary haul road into the existing Keadby 1 Power Station Site (the 'Additional Abnormal Indivisible Load (AIL) Route');
- a number of temporary Construction Laydown Areas on previously developed land and adjoining agricultural land; and
- land at the A18 Junction and an existing site access road, including two existing private bridge crossings of the Hatfield Waste Drain lying west of Pilfrey Farm (the western of which is known as Mabey Bridge, to be replaced, and the eastern of which is termed Skew Bridge) and an existing temporary gatehouse, to be replaced in permanent form.

1.3.5 In the vicinity of the Proposed Development Site the River Trent is tidal. Therefore, parts of the Proposed Development Site are within the UK marine area. No harbour works are proposed.

1.3.6 Further description of the Proposed Development Site and its surroundings is provided in **Chapter 3: The Site and Surrounding Area** in ES Volume I (**APP-046**).

## **1.4 The Proposed Development Changes**

1.4.1 The Applicant originally proposed and consulted on a total of five changes. Number 2 on the original list of changes is no longer used, having been withdrawn by letter (REP6-018). The changes that are hereby applied for will still be referred to as Change 1, 3, 4 and 5 for consistency. These are collectively known as the 'Proposed Development Changes' and are described as follows:

1. Inclusion of riverbed within the Waterborne Transport Offloading Area (Railway Wharf).

3. Increase to the maximum heights of the carbon dioxide absorbers/ stacks, if two are installed.

4. Increase to the maximum heights of the carbon dioxide stripper column.

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5. Increase in proposed soil import volumes to create a suitable development platform.

~~1.3.7 With the Proposed Development Changes, the Proposed Development Site would cover an area of 69.7 hectares (ha) (a minor increase of 0.3ha in the amount of the Applicant's land required).~~

~~1.3.81.4.2 At the time of writing the Examining Authority has not determined whether to accept the Proposed Development Changes into examination and has issued questions to the Applicant and Canal and River Trust and Natural England dated 13 April 2022 (PD-017).~~

~~On 5 April 2022 the Applicant submitted a request for the following changes to the Proposed Development, together known as 'the Proposed Development Changes':~~

~~The Proposed Development Changes have resulted from design contractor involvement, which has continued to refine the detail of this 'First of a Kind' Project implementation.~~

- ~~• Change No. 1 – Inclusion of riverbed within the Waterborne Transport Offloading Area (Railway Wharf)~~
- ~~• Change No. 2 – Changes to the Additional Abnormal Indivisible Load Route, largely within SSE land and all within existing Order Limits (subsequently withdrawn by the Applicant on 26 April 2022).~~
- ~~• Change No. 3 – Increase to the maximum heights of the carbon dioxide absorbers/ stacks, if two are installed.~~
- ~~• Change No. 4 – Increase to the maximum heights of the carbon dioxide stripper column.~~
- ~~• Change No. 5 – Increase in proposed soil import volumes to create a suitable development platform.~~

~~1.3.1 With the Proposed Development Changes, the Proposed Development Site would cover an area of 69.7 hectares (ha) (a minor increase of 0.3ha in the amount of the Applicant's land required).~~

~~1.3.1 At the time of writing the Examining Authority has not determined whether to accept the Proposed Development Changes into examination and has issued questions to the Applicant and Canal and River Trust and Natural England dated 13 April 2022 (PD-017).~~

#### **1.4.1.5 The Development Consent Process**

**1.4.1.5.1** As a NSIP project, the Applicant is required to seek a DCO to construct, operate and maintain the generating station, under Section 31 of the 2008 Act. Sections 42 to 48 of the 2008 Act govern the consultation that the promoter must carry out before submitting an application for a DCO and Section 37 of the 2008 Act governs the form, content and accompanying documents that are required as part of a DCO application.

**1.4.21.5.2** An application for development consent for the Proposed Development has been submitted to and accepted for examination by the Planning Inspectorate (PINS) acting on behalf of the SoS. PINS is now examining the Application and will make a recommendation to the SoS, who will then decide whether to make (grant) the DCO.

#### **1.5.1.6 The Purpose and Structure of this Document**

**1.5.1.6.1** This document provides the Examining Authority ('ExA') with the current position on the Statements of Common Ground ('SoCG') between the Applicant, prescribed consultees and interested parties in relation to the Proposed Development. It is provided in response to the ExA's procedural decision in paragraph 2 of Annex E to the Rule 8 letter dated 14 December 2021.

**1.5.21.6.2** This Document supersedes the previous Statement of Commonality of Statements of Common Ground that was submitted at Deadline ~~63~~ on ~~15-26 April 2022~~ ~~February 2022~~.

**1.5.31.6.3** The document is structured as follows:

- Section 2 – List of SoCG Parties
- Section 3 – Summary of Current Status of SoCGs
- Section 4 – Commonality
- Section 5 – References

## 2.0 LIST OF SOCG PARTIES

- 2.1.1 The Applicant has prepared a SoCG with a number of prescribed consultees and interested parties during the preparation of the Application and during the Examination stage.
- 2.1.2 The SoCG identify matters on which the parties agree and document where matters remain to be resolved.
- 2.1.3 The Applicant has prepared SoCG with the prescribed consultees and interested parties set out in Table 2.1 below.

**Table 2.1: List of SoCG Parties**

DOCUMENT REF.	PARTY
8.1	North Lincolnshire Council
8.2	Environment Agency
8.3	Natural England
8.4	Marine Management Organisation
8.5	Historic England
8.6	National Grid Carbon Limited (part of National Grid Ventures)
8.7	National Grid Electricity Transmission and National Grid Gas
8.8	Canal River Trust
8.9	Network Rail
8.10	Maritime and Coastguard Agency
8.11	Trinity House / Associated British Ports
8.12	Northern Powergrid
8.13	UK Health Security Agency
8.14	Keadby with Althorpe Parish Council
8.15	National Highways
8.16	Severn Trent Water
8.17	Isle of Axholme and North Nottinghamshire Internal Drainage Board

### 3.0 SUMMARY OF CURRENT STATUS OF SOCGS

3.1.1 This section confirms the current status of each SoCG, as at Deadline 6a of the Examination on ~~26 April 2022~~ 10 May 2022.

3.1.2 Table 3.1 below provides the high-level position on/ status of each SoCG and where necessary includes further detail to aid the ExA's understanding. The terms used in Table 3.1(below) are as follows:

- Final SoCG – the final SoCG has agreed by the parties and there are no outstanding matters to resolve.
- Draft SoCG – the SoCG has been agreed or largely agreed between the parties, but as there are matters that are yet to be resolved (listed at the end of each document), it has not been signed.
- Other – as denoted in the table below.

**Table 3.2: Current Status of SoCGs**

DOCUMENT REF.	PARTY	POSITION AT DEADLINE 6A
8.1	North Lincolnshire Council	Final SoCG
8.2	Environment Agency	Final SoCG
8.3	Natural England	Final SoCG with signature to follow <u>soon at-after</u> Deadline 6a
8.4	Marine Management Organisation	Final SoCG
8.5	Historic England	Final SoCG
8.6	National Grid Carbon Limited (part of National Grid Ventures)	Final SoCG <u>with signature to follow at Deadline 6a</u>
8.7	National Grid Electricity Transmission and National Grid Gas	Final SoCG
8.8	Canal River Trust	<u>Final SoCG with signature to follow soon after Deadline 6a</u>
8.9	Network Rail	Draft SoCG
8.10	Maritime and Coastguard Agency	Final SoCG
8.11	Trinity House / Associated British Ports	Final SoCG

8.12	Northern Powergrid	Final SoCG <sup>1</sup> <del>with signature to follow at Deadline 6a</del>
8.13	UK Health Security Agency	<del>Draft SoCG (Passed for signing)</del>
8.14	Keadby with Althorpe Parish Council	Draft SoCG
8.15	National Highways	Final SoCG
8.16	Severn Trent Water	Final SoCG
8.17	Isle of Axholme and North Nottinghamshire Internal Drainage Board	Final SoCG <del>with signature to follow at Deadline 6a</del>

<sup>1</sup> The SoCG between the Applicant and Northern PowerGrid was previously signed with matters regarding Protective Provisions not agreed. The respective matters are now understood to have been agreed and Northern Powergrid intends to contact the ExA after Deadline 6a to assure this position.

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## 4.0 COMMONALITY

- 4.1.1 This section provides a summary of main topics covered by the SoCG and identifies where there is commonality in the topics between the SoCG parties.
- 4.1.2 Table 4.1 on the following page has been produced following a request from the ExA within the Rule 8 letter dated 14 December 2021 and relates to the SoCG listed in Table 3.1 in Section 3.
- 4.1.3 Table 4.1 is structured so as to show main topics covered within each of the SoCG (identifying where there is commonality in topics between the parties) and the current position/ status with regard to each topic as follows:

	Agreed
	Subject to further discussion
	Currently subject to disagreement

- 4.1.4 Table 4.1 provides a summary of the further discussions with parties where matters are not yet agreed. For further information on areas of further discussion and disagreement, please refer to the relevant SoCG.

**Table 4.1: Table of Commonality at Deadline**

DOCUMENT REF.	PARTY	TOPICS																									
		Relevant Planning History	Local Planning Designations	Relevant Planning Policy	Need for the Proposed Development	Principle of Development	Benefits of the Development	Flexibility and Design	Consultations with the Consultee	Construction Programme and Management	Air Quality	Noise and Vibration	Traffic and Transport	Ecology	Landscape and Visual Amenity	Geology, Hydrogeology and Land Contamination	Cultural Heritage	Water Resources, Flood Risk and Drainage	Socio-Economics	Waste Management	Cumulative and Combined Effects	Land Interests	Site Access	Sustainability and Climate Change	Protective Provisions	Requirements	
8.1	North Lincolnshire Council																										
8.2	Environment Agency																										
8.3	Natural England																										
8.4	Marine Management Organisation																										
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8.10	Maritime and Coastguard Agency																										
8.11	Trinity House / Associated British Ports																										
8.12	Northern Powergrid																										
8.13	UK Health Security Agency																										
8.14	Keadby with Althorpe Parish Council																										2

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2 Whilst the SoCG has not been updated, we have included updated drafting in Requirement 6 in the DCO submitted at Deadline 6 to address their request for consultation on planting schemes hence this topic is considered to be agreed.



8.15	National Highways																							
8.16	Severn Trent Water																							
8.17	Isle of Axholme and North Nottinghamshire Internal Drainage Board																							

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