# KEADBY 3 CARBON CAPTURE POWER STATION

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

# Notification of Proposed Application for a Material Change

The Planning Act 2008 Paragraphs 109-115 of Guidance for the examination of applications for development consent (DCLG, 2015) Applicant: Keadby Generation Limited Date: February 2022



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## GLOSSARY

Abbreviation	Description
AGL	Above Ground Level
AIL	Abnormal Indivisible Load
AOD	Above Ordnance Datum
CCGT	Combined Cycle Gas Turbine
CCP	Carbon Capture Plant
CO <sub>2</sub>	Carbon Dioxide
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
NTS	Non-Technical Statement
PCC	Proposed Power and Carbon Capture
PINS	Planning Inspectorate
SoCG	Statement of Common Ground
SoS	Secretary of State





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## 1.0 INTRODUCTION

### 1.1 Overview

- 1.1.1 Keadby Generation Limited ('the Applicant') submitted an application ('the Application') for a Development Consent Order (a 'DCO'), to the Secretary of State (the 'SoS') for Business, Energy and Industrial Strategy under Section 37 of the Planning Act 2008 ('the 2008 Act') in respect of the Keadby 3 Low Carbon Gas Power Station Project. The Application was submitted on 1 June 2021 and was accompanied by an Environmental Statement ('ES') [APP-043 to APP-159] and ES Non-Technical Summary ('NTS') [APP-042] prepared in accordance with the Infrastructure Planning ('Environmental Impact Assessment') Regulations 2017 ('the EIA Regulations'). 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').
- 1.1.2 During the Pre-Examination period, the Applicant has continued to engage extensively with the potential supply chain and has continued to develop further design information for the future construction and operation of the Proposed Development. In particular, since the submission of the DCO application the Applicant has engaged with two potential design contractors to develop design concepts and refine assumptions around the construction of the Proposed Development. Through this ongoing work, the Applicant has identified a limited number of changes ('the Proposed Development Changes') that are sought to be made to the Proposed Development, which are outlined below.
- 1.1.3 The Applicant considers that the Proposed Development Changes to the Application, taken together, are material. Therefore, the Applicant is notifying the Examining Authority ('ExA') of its intention to formally request a material change to the Application through a Material Change Application and seeks advice from the ExA on the procedural implications. The Proposed Development Changes are intended to enhance the Application, which remains an application for fundamentally the same Project. The Proposed Development Changes are not considered to be of such a degree that their effect would constitute a materially different project.
- 1.1.4 Consultation on the Proposed Development Changes would be undertaken as envisaged by the Planning Inspectorate's ('PINS') Advice Note 16<sup>1</sup> ('AN16') and

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<sup>1.1.1 &</sup>lt;sup>1</sup> Advice Note 16: How to request a change which may be material, Planning Inspectorate, March 2018



mirroring statutory pre application consultation methods carried out by the Applicant previously, as described more fully later in this report. Views of the ExA are sought on consultation proposals (Step 2 of the AN16 process).

1.1.5 The Applicant has continued to undertake environmental surveys and has undertaken some additional technical assessment work in response to questions raised by stakeholders following submission of the Application. As this work is relevant to the Application, the Applicant proposes to also make these available to the examination. This information, together with some further design development, does not represent a change to the proposals (and will therefore not form part of the consultation) but may be of interest to stakeholders and the Applicant recognises that it should therefore be made available in good time to inform the examination. Views of the ExA are sought on the principle of the Applicant's proposed approach, which is to submit this additional and revised information with the material change request.

### 1.2 Report structure

- 1.2.1 The remainder of this Notification Report is structured as follows:
  - Section 2: The DCO Application provide a recap of the Proposed Development that is subject to the examination at present.
  - Section 3: Proposed Development Changes provides a description of, and justification for, the changes.
  - Section 4: Potential Changes to the environmental assessments provides an overview of further work being undertaken to assess how the changes could affect the environmental assessments reported in the DCO Application.
  - Section 5: Consultation details the proposed consultation approach.
  - Section 6: Indicative Programme sets out indicative timescales for introducing the changes.
  - Section 7: Submission of Additional Information identifies the additional material the Applicant intends to submit as part of the Material Change Application.





## 2.0 THE DCO APPLICATION

### 2.1 **Overview of the DCO Application**

- 2.1.1 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').
- 2.1.2 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).
- 2.1.3 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.
- 2.1.4 The DCO, if made by the SoS, would be known as 'The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order' ('the Order').

### 2.2 The Development Described in the DCO Application

- 2.2.1 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.
- 2.2.2 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**).
- 2.2.3 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.





- 2.2.4 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.
- 2.2.5 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.
- 2.2.6 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.

2.2.7 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**).

### 2.3 The Site of the Development Described in the DCO Application

- 2.3.1 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.
- 2.3.2 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.
- 2.3.3 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).
- 2.3.4 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 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.
- 2.3.5 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.
- 2.3.6 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**).

### 2.4 The Development Consent Process

- 2.4.1 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.
- 2.4.2 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.
- 2.4.3 It is recognised that the Examining Authority will not examine the Material Change Application until and unless a decision to accept the Material Change into examination has been made.





### 3.0 PROPOSED DEVELOPMENT CHANGES

### 3.1 Introduction

- 3.1.1 Pre-application consultation has been a core element of the Application for the Proposed Development. The Consultation Report [APP-030] explains the consultation activities undertaken by the Applicant over the course of 2020/1 in relation to statutory pre-application consultation in accordance with the requirements of Section 37 of the 2008 Act as well as the non-statutory consultation carried out earlier for the Proposed Development. This consultation informed the Project's development and the methodology of the subsequent statutory consultation. Throughout the process, the Applicant has sought to clearly explain and seek feedback on its emerging proposals from the local community, statutory consultees and the general public, and have regard to the feedback received pursuant to section 49 of the 2008 Act.
- 3.1.2 The Proposed Development Changes set out in this report have resulted from design contractor involvement, which has continued to refine the detail of this 'First of a Kind' Project implementation.
- 3.1.3 This formal notification of the Proposed Development Changes is being made as soon as possible in the examination period to provide time for the necessary steps to be taken without impacting on the statutory timescale for the examination stage, which is required to conclude on 7 June 2022.

### 3.2 Materiality of changes

- 3.2.1 The Applicant is proposing five changes, which are summarised in Table 1 below and explained in the text that follows.
- 3.2.2 Planning Act 2008: Guidance for the examination of applications for development consent (DCLG, 2015) explains at paragraph 109 that reasons for a material change application 'could include, for example, regulatory changes, technical developments or the discovery of previously unknown factors arising from representations received after acceptance or examination submissions.' The table includes a brief rationale for each Proposed Development Change, noting that in general these relate to technical developments and previously unknown information obtained through supply chain engagement.





### Table 3: Summary of Proposed Development Changes

ID	Description	Material on its own?
1	An increase to the Order Limits to provide facilities for safe mooring of the largest vessels delivering AIL. Land within the River Trent is proposed to be included in the Order Limits which will be required for the mooring of vessels at the Waterborne Transport Offloading Area ( <b>Work No. 10B</b> ).	No
2	<ul> <li>Changes to the Additional AIL Route (Work No. 10A) which requires the following updates to the Order Limits:</li> <li>incorporating a new section (up to 0.18ha) of Additional AIL Route through the Keadby 1 Power Station outage/ contractor compound;</li> <li>extension of the Additional AIL Route for larger AIL to avoid Keadby 1 Power Station. A new northern route is proposed for wider vehicles within the existing Order Limits; and</li> <li>a very minor increase (0.02ha) to the Order Limits south of Bonnyhale Road is also proposed to allow oversail of the largest AIL components.</li> </ul>	Potentially
3	An increase to the parameters (height) presented in Schedule 11 – Design Parameters of the draft DCO [ <b>APP-005</b> ] and <b>Chapter 4</b> : The Proposed Development [ <b>APP-047</b> ] for <b>Work No. 1C.</b> This change is required in the event that up to two absorber columns and associated stacks are developed for the removal of carbon dioxide ('CO <sub>2</sub> ') from flue gases within the CCP. The maximum height of the structures would be increased by up to 22m as shown in Table 2, noting that even at this increased height, the twin absorbers would still be lower in height than the proposed single absorber option that still also forms part of the Proposed Development.	Potentially
4		No
5	An increase of up to 50,000m <sup>3</sup> above the previously presented volume of 130,000 m <sup>3</sup> related to the maximum proposed import volumes for soil described	No

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ID	Description	Material on its own?
	in <b>Chapter 5</b> : Construction Programme and Management [ <b>APP-048</b> ] to provide a suitable platform for foundations and buildings/ equipment across the Proposed Power and Carbon Capture ('PCC') Site.	

- 3.2.3 Neither the 2008 Act nor the Infrastructure Planning (Changes to, and Revocation of, DCOs) Regulations 2011 define what constitutes a material change to a project.
- 3.2.4 Planning Act 2008: Guidance for the examination of applications for development consent (DCLG, 2015) explains at paragraphs 109-115 general considerations around making changes to an application post-acceptance and factors that the ExA will take into account in deciding to accept an application for a material change. The guidance notes at paragraph 110 that if the *'proposed change is of such a degree that it constitutes a materially different project then the applicant will need to determine how best to proceed'.*
- 3.2.5 Advice Note 16 clarifies that 'whether the change is substantial' will be an appropriate consideration in identifying a material change. The matter is ultimately a question of planning judgement, which Advice Note 16 confirms may be based on criteria including:
  - whether the change would generate new or different likely significant environmental effect(s); and
  - whether (and if so the extent to which) a change request involves an extension to the order land, particularly where this would require additional compulsory acquisition powers, e.g. for new plots of landand/or interests.
- 3.2.6 The change request involves a minor extension to the order land to accommodate vessels that would be required to use the Waterborne Transport Offloading Area and other minor changes to the Order Limits within the Applicant's land for the purposes of constructing a northern haul route for abnormal loads. The extension does not require additional compulsory purchase powers given that only Crown Land or is affected, which cannot be compulsorily acquired and all other changes to the Order Limits are within the Applicant's land. At this stage, it is considered unlikely that these changes will generate new or materially different environmental effects, based upon the Applicant's initial assessment results. The change request also involves an increase to the parameters (height) of structures within the carbon capture plant ('CCP') and an increase in the volumes of soil imported to the Proposed PCC Site for the purposes of providing suitable foundations for the Proposed Development. In their own right, these changes are also unlikely to generate new or materially different environmental effects. Nevertheless, when all the



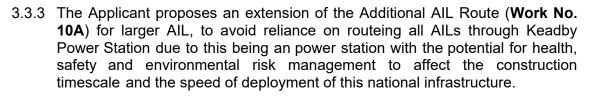
proposed changes are taken together, they are considered to constitute a material change to the Proposed Development. The Project remains, nevertheless, the same in substance as that which was originally applied for. Whether the changes are material or not, the Applicant intends that they be fully publicised and consulted upon.

- 3.2.7 This Notification Report follows the guidance on how to make a request for a material change to an accepted application, in accordance with the flow chart shown in Advice Note 16.
- 3.2.8 This Notification Report constitutes Step 1 of that flowchart and provides the ExA with the necessary information to allow advice to be given to the Applicant (Step 2). Requested advice includes: the procedural implications of the Proposed Development Changes; guidance on the need, scale and nature of consultation that the Applicant should undertake; and views on submitting additional or revised information that does not constitute a change with Step 4 of the process set out Advice Note 16.
- 3.2.9 For the avoidance of doubt, the Applicant is clear that the proposed changes are not individually or collectively so substantial or different in character as to be a different project. Reasons for this include that the changes involve no change to the use, general location, purpose, and generating capacity of the Proposed Development, and only limited changes to the landtake and dimensions of certain structures relative to the overall landtake and massing of the Proposed Development.
- 3.3 Summary overview of Proposed Development Changes

# a) Change 1: Extension of Waterborne Transport Offloading Area to incorporate land within River Trent

- 3.3.1 An increase in the extent of land included in the Order Limits within the River Trent which would be occupied by delivery vessels is proposed in order to accommodate the largest (82m long) potential vessels, as used here during the Keadby 2 Power Station construction project. Where vessels are required to be moored for the full tide cycle, they could require use of the sea bed, which is Crown Land and as such, it is intended to negotiate voluntarily for rights for this. The proposed revised Order Limits are presented in **Appendix A**.
  - b) Change 2: Changes to the Additional AIL Route (Work No. 10A) (Contractor/ outage compound area, east of Keadby 1 Power Station and north of Keadby 1 Power Station) all within land under the control of the Applicant.
- 3.3.2 As noted in section 2, the Proposed Development incorporates the retention, construction and subsequent removal of an existing temporary haulage route (Additional AIL Route) used during Keadby 2 Power Station construction.





- 3.3.4 The new northern AIL Route would incorporate temporary use of a section of Keadby 1 Power Station outage/ contractor compound. Demolition/ relocation of existing Keadby 1 Power Station buildings/ offices within this area may be required. From the Keadby 1 Power Station outage/ contractor area east of Keadby 1 Power Station, an extension to the existing Additional AIL Route would be constructed. The route would seek to avoid loss of and disturbance to existing vegetation, although where permanent loss of vegetation is unavoidable, compensation/ enhancement of biodiversity including replacement tree planting would be undertaken.
- 3.3.5 Where the route of the Additional AIL route crosses existing services including Keadby 1 cooling water pipework corridor, a temporary piled bridge structure would be used to minimise risk to the integrity of the existing cooling water pipework lines and other services. Other parts of the Additional AIL route would use similar materials and techniques to the existing retained Additional AIL Route created for Keadby 2 Power Station construction. Abnormal loads using the Additional AIL Route to deliver AILs would travel west along the northern boundary of Keadby 1 Power Station, within the Order Limits, and then cross Chapel Lane making use of existing road infrastructure within the existing above ground tank farm to re-join the existing Additional AIL Route along Bonnyhale Road. They would also use the route in reverse.
- 3.3.6 A very minor increase (0.02ha) to the Order Limits south of Bonnyhale Road is also proposed to allow oversail of the largest AIL components. This area is within the Applicant's land.
- 3.3.7 Following completion of construction, re-instatement and enhancement of habitats within the northern Additional AIL Route would be undertaken as part of the overall landscape and biodiversity management and enhancement proposals (**Work No. 11A**).

# c) Change 3: Increase to the maximum parameters (height) for up to two absorbers/ stacks

3.3.8 Ongoing engagement with design contractors has identified that in the event that up to two absorbers are required for the removal of CO<sub>2</sub> from flue gases within the CCP (**Work No. 1C**), the twin absorber units and stacks may have maximum dimensions up to 80m above ground level ('AGL') for the absorber towers and up to 15.5m high for the stacks i.e. up to 95.5m AGL in total, which equates to a maximum of 98.3m Above Ordnance Datum ('AOD') for each absorber and associated stack. These maximum dimensions - established



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through ongoing design development - are approximately 20m higher than those previously assessed in the ES for up to two absorbers/ stacks (denoted in italics in Table 2 below).

# d) Change 4: Increase to the maximum parameters (height) for CO<sub>2</sub> stripper column

- 3.3.9 Ongoing design development with design contractors has also identified that the proposed CO<sub>2</sub> stripper column (also **Work No. 1C**) may have maximum dimensions up to 63m AGL, which equates to a maximum of 65.8m AOD which is 10m higher than was included as a parameter in the draft DCO [**APP-005**].
- 3.3.10 Table 2 sets out the updated parameters that have been assessed within this ES Addendum for up to two absorbers/ stacks and the CO<sub>2</sub> stripper column. Parameters that have been previously assessed and are included in the draft DCO [**APP-005**] are expressed in *italics* in Table 2.
- 3.3.11 As both the twin absorbers and CO<sub>2</sub> stripper column (Work No. 1C) are located within the Proposed PCC Site, these parameters take into account the expected revised minimum finished floor design level of +2.8m AOD for CCP infrastructure within the Proposed PCC Site set out in the Additional Submission 6.3.20 ES Appendix 12A Flood Risk Assessment (AS-010) accepted by the Examining Authority.



### Table 4: Main dimensions for up to two absorbers and CO2 stripper

Component	Length (m)	Width (m)	Height (m) AGL	Height (m) AOD
Minimum design level (final ground height) within 'Main Site' for CCGT/ CCP infrastructure ( <b>Work 1A</b> / <b>1C</b> ) and administration/ control buildings ( <b>Work 1E</b> )		-	-	-
Twin Absorbers ( <b>Work No.</b> <b>1C</b> ) (in the case that two absorbers are developed)	-	19.0 – no change	Up to 80 <i>(58)</i>	82.8 (60.6)
Twin absorber stacks ( <b>Work No. 1C</b> ) (in the case that two absorbers are developed)		-	95.5 (76.0)	98.3 (78.6)
CO <sub>2</sub> stripper ( <b>Work No.</b> <b>1C</b> )	-	15.0 – no change	63.0 <i>(53.0)</i>	65.8 <i>(55.6)</i>

\*previously assessed in (italics)

### e) Change 5: Increase in proposed soil import volumes

3.3.12 Ongoing design development and engagement with design contractors has identified that additional volumes of soil may need to be imported to provide a suitable platform for foundations and buildings/ equipment across the Proposed PCC Site, taking into account anticipated ground conditions and the revised finished floor level noted in Table 2 (revised from 2.6m AOD to up to 2.8m AOD). Up to 180,000m<sup>3</sup> of soils may need to be imported representing an increase of 50,000m<sup>3</sup> over the volume previously assessed in the ES.





# 4.0 POTENTIAL CHANGES TO THE ENVIRONMENTAL ASSESSMENTS

### 4.1 Overview

- 4.1.1 The findings of the environmental assessments reported in the DCO Application are unlikely to substantially alter as a result of the Proposed Development Changes. However, further work is proposed to confirm this position. Such confirmation will be provided when the Applicant submits the Material Change Application.
- 4.1.2 For each Proposed Development Change, this section of the report identifies the scope of any further assessment considered necessary and provides an initial view on which environmental topics are potentially likely to be affected. Where further assessment identifies a change, the cumulative effects will also be considered.
- 4.1.3 The findings of the Habitats Regulations Assessment Appropriate Assessment Report [**REP1-006**] are anticipated to be unchanged, however this will be reviewed following completion of the proposed updates to the environmental assessments to confirm.
- 4.1.4 This section also identifies some of the potential reports to be included in a Material Change Application although is not an exhaustive list and it is recognised that AN16 identifies a range of documents, plans and other updates are prepared to accompany a Material Change Application.

# a) Change 1: Extension of Waterborne Transport Offloading Area to incorporate land within River Trent

4.1.5 During offloading of the largest vessels which could moor at the existing Waterborne Transport Offloading Area (Work No. 10B) for the purposes of AIL deliveries, it will be necessary to secure vessels to existing mooring posts and vessels may be required to settle on the river bed throughout a full tide cycle. This construction protocol is entirely consistent with that recently undertaken during construction of Keadby 2 Power Station for AIL deliveries and has therefore already been assessed in Table 6 of the Navigation Risk Assessment (Appendix 12C) of the ES [APP-086], including consultation with relevant navigation stakeholders. By incorporating the slightly larger area to accommodate the largest potential vessels to be used, and by including the land for mooring of the vessel on the river bed within the Order Limits, no new likely significant effects are anticipated. Through technical engagement and formal consultation, the Applicant will confirm this position with relevant navigation stakeholders.





- 4.1.6 Other environmental effects are anticipated to remain unchanged, however the water quality, marine ecology and noise assessments will be reviewed to confirm this.
  - b) Change 2: Changes to the Additional AIL Route (Work No. 10A) (Contractor/ outage compound area, east of Keadby 1 Power Station and north of Keadby 1 Power Station)
- 4.1.7 Potential effects on traffic and transport (abnormal load routing), and construction related effects including air quality, noise and vibration, biodiversity and nature conservation, water resources, geology, hydrogeology and land contamination, cultural heritage and climate change will be re-evaluated. A tree survey and arboricultural impact assessment will also be undertaken in relation to a small number of trees that may be affected by the Proposed Development Change. Updates to the Landscape and Biodiversity Management and Enhancement Plan [APP-039] are also proposed and will be informed by the Applicant's proposed updated biodiversity net gain assessment using Natural England Metric 3.0.
- 4.1.8 Other environmental effects are anticipated to remain unchanged.
  - c) Change 3: Increase to the maximum parameters (height) for up to two absorbers/ stacks
- 4.1.9 Potential effects on air quality, landscape and visual amenity and noise and vibration will be re-evaluated together with potential related inter-disciplinary effects (e.g. on biodiversity and nature conservation) due to the additional height proposed for up to two absorbers/ stacks.
- 4.1.10 Other environmental effects are anticipated to remain unchanged.
  - d) Change 4: Increase to the maximum parameters (height) for CO<sub>2</sub> stripper column
- 4.1.11 Potential effects on landscape and visual amenity and noise and vibration will be re-evaluated together with potential related inter-disciplinary effects due to the additional height proposed for the CO<sub>2</sub> stripper.
- 4.1.12 Other environmental effects are anticipated to remain unchanged.
  - e) Change 5: Increase in proposed soil import volumes
- 4.1.13 Traffic and transport and related construction traffic noise and construction traffic effects on air quality will be re-evaluated to take account of this proposed change, although as the change will not coincide with the peak of construction traffic for the Proposed Development (on which the assessments are based), it





is considered likely that environmental effects assessed will not materially change.

4.1.14 Other environmental effects are anticipated to remain unchanged.





### 5.0 CONSULTATION

### 5.1 Introduction

- 5.1.1 Planning Act 2008: Guidance for the examination of applications for development consent (DCLG, 2015) explains at paragraphs 113-115 considerations around consultation and engagement on material changes made post acceptance. Key is the need to be able to conduct a fair and reasonable examination, and it is noted that the introduction of material changes during the final stages of the examination period could in some instances mean that the examination would breach these principles.
- 5.1.2 In order to assist the examination the Applicant intends to carry out consultation that mirrors statutory consultation carried out pre application under sections 42, 47 and 48 of the 2008 Act, so far as is proportionate and practicable, to ensure that all persons who are entitled to be consulted or who were consulted on the original application have the opportunity to make any representations on the Proposed Development Changes. This will avoid prejudice to interests for those potentially impacted by the material change and the opportunity to comment on the Proposed Development Changes.
- 5.1.3 Notwithstanding the above, the Applicant seeks the views of the ExA as to the proposed consultation methods and parameters.

### 5.2 Engagement so far carried out

- 5.2.1 Planning Act 2008: Guidance for the examination of applications for development consent (DCLG, 2015) explains at paragraph 114 that it is expected that "applicants will discuss the implications of any changes they wish to make with relevant statutory consultees ... at the earliest opportunity".
- 5.2.2 Early engagement has taken place with the local authority (North Lincolnshire Council) in order to introduce them to the forthcoming Material Change Application and to seek their views on the consultation proposals. The general approach of mirroring the section 47 consultation methods, albeit in a proportionate way, was discussed.
- 5.2.3 The Applicant has also taken the opportunity in discussions with statutory undertakers in the latter part of January, where possible to do so as part of meetings already set up on other matters relating to the examination, to introduce them to the forthcoming Material Change Application and consultation.

### 5.3 Consultation

5.3.1 The local authority, prescribed consultees and persons with an interest in land affected by the proposed changes are proposed to be consulted, as advised in Advice Note 16. In doing so the Applicant will mirror so far as is practicable the





section 42 letter format, enclosures, and methods (e-mail notification where verified, or postal).

- 5.3.2 The Applicant will also consult members of the public on the Proposed Development Changes, including all parties within the 'Inner Consultation Zone' in the previously published Statement of Community Consultation (the area that received information by post during the Stage 2 statutory consultation) through the mailing of a large information leaflet. Similarly the 'Outer Consultation Zone' will be reached through advertising in the local media, including the main print titles and online through digital and social platforms. The newsletter will be sent to all homes and businesses in the Outer Consultation Zone.
- 5.3.3 The Applicant intends to consult for 30 days, with all parties being sent a nontechnical summary (NTS) of the Proposed Development Changes in the form of a newsletter. The summary will also include dates by which responses can be made, how to participate and details of the consultation website. The website will contain an online consultation document and feedback form.
- 5.3.4 The Applicant intends to host two information days/ public exhibitions provisionally identified for 3-4 March, outside of the half term week.
- 5.3.5 A freephone number and email address will be provided for the provision of feedback, to ask questions, and to ask for hard copies or other accessibility requirements.
- 5.3.6 The above methods are generally consistent with the methods used in the Applicant's Stage 2 statutory consultation, as set out in the Statement of Community Consultation and under the statutory processes under Sections 42-48 and the EIA Regulations. The Stage 2 statutory consultation was the subject of six satisfactory Adequacy of Consultation representations (AoC-001 to AoC-007).
- 5.3.7 A key addition is the holding of two information days (where none were conducted pre application due to both specific restrictions on gatherings and informal or travel restrictions that would cause low attendance). The Applicant has decided not to run a virtual exhibition room website or webinars, which were methods trialled in our Stage 1 and Stage 2 consultations and described in the Consultation Report, because the consultation material is expected to be concise given the limited extent and complexity of the Proposed Development Changes meaning that drawings, plans and the NTS document will provide a suitable account. Similarly we do not intend to run notices in a similar format to Section 48 notices, due to the consultation not having a statutory basis and therefore not running in the legal notice section of newspapers; instead clear advertising in the run of paper (the main section) will be undertaken that provides relevant text description and imagery, and information about contact methods and the information days.





5.3.8 In summary the Applicant has taken due regard of the consultation methods that were widely found acceptable at Stage 2 consultation, appropriate to the scale and nature of the Proposed Development Changes, to develop a consultation exercise that will be carried out and reported on while upholding the fairness and reasonableness of the examination process.

### 5.4 Consultation Statement

- 5.4.1 A Consultation Statement will be submitted with the material change request, confirming who has been consulted in relation to the proposed changes in accordance with Advice Note 16.
- 5.4.2 Copies of any consultation responses received will also be included as an annex.





### 6.0 INDICATIVE PROGRAMME

### 6.1 The Infrastructure Planning (Compulsory Acquisition) Regulations 2010

- 6.1.1 The Applicant is proposing to make changes within the existing Order land, including the addition of a northern Additional AIL Route within the Order Land (and predominantly within SSE group company owned land). An extension to the Order Limits (but within SSE group company owned land) is proposed as part of Change 2, as is the addition of new rights within Crown Land where the Applicant cannot exercise powers of compulsory acquisition (Change 1).
- 6.1.2 Accordingly no additional land under the meaning of regulation 4 of the Infrastructure Planning (Compulsory Acquisition) Regulations 2010 is to be included within the Material Change Application and the Applicant does not consider that regulations 5-7 of the same are engaged.
- 6.1.3 As an Additional Provision is not likely to be sought as part of the Material Change Application, the 28-day periods set out in regulations 6(1) and 7(2)(I) are not required and do not appear in the indicative timeline below.

### 6.2 Indicative timeline

- 6.2.1 In accordance with Advice Note 16, this report sets out when the request to make a material change is likely to be made to the ExA.
- 6.2.2 The Applicant's current working dates for each of the six steps contained in Advice Note 16 are set out below:
  - Step 1: Notification of changes to Inspectorate (this report): 1 February 2022.
  - Step 2: Inspectorate to provide advice: assumed w/c 7 February 2022.
  - Step 3: Non-statutory 30-day consultation begins: 18 February 2022.
  - Step 4: Formal request for changes: 5 April 2022 (corresponding to Deadline 5 of the current examination timetable).
  - Step 5: ExA decision on whether to accept the changes: determined by the ExA but assumed soon after Deadline 5.
- 6.2.3 The Applicant looks forward to receiving the 'Step 2' letter from the Examining Authority and expects to initiate the Step 3 consultation on or around 11 February 2022 due to newspaper print deadlines.







# 7.0 EXPECTED TIMESCALES FOR CONSULTATION AND PREPARATION OF THE MATERIAL CHANGE APPLICATION

- 7.1.1 In addition to the Proposed Development Changes and additional environmental assessment work described in sections 2 and 3, the Applicant also intends to submit additional technical information. This has been developed in response to continuing engagement with stakeholders as part of the process of agreeing Statements of Common Ground ('SoCG').
- 7.1.2 It is intended this information is provided to stakeholders and the ExA as part of the change application .
- 7.1.3 Submission of the information summarised in this section of the Notification Report is not considered to constitute a Project change and is provided for information purposes only.

### a) Update 1: Change of Project Name

- 7.1.4 Following the development of a new partnership arrangement between SSE and Equinor for the development of low carbon projects, the Applicant is proposing to change the project name to 'Keadby 3 Carbon Capture Power Station'. This was notified in our Deadline 1 Cover Letter (**REP1-001**) and the consultation will include the new Project Name in response to the Rule 17 letter of 17 January 2022 (**PD-010**).
  - b) Update 2: Provision of further surveys and assessments
- 7.1.5 Additional surveys and assessments have either been completed or are proposed to supplement the assessments presented in the DCO and in response to stakeholder feedback. Details of these have in many cases, already been described in statements of common ground and the Applicant's responses to Relevant Representations and Written Questions. Those submitted would include:
  - Additional environmental surveys to provide the most up-to- date data for examination, following engagement with Natural England and other stakeholders.
  - Updated outline written scheme of archaeological investigation and associated archaeological evaluation reports following further engagement with North Lincolnshire Council.
  - Additional assessments relating to the assessment of impacts on fish species, following engagement with the Environment Agency and other stakeholders.

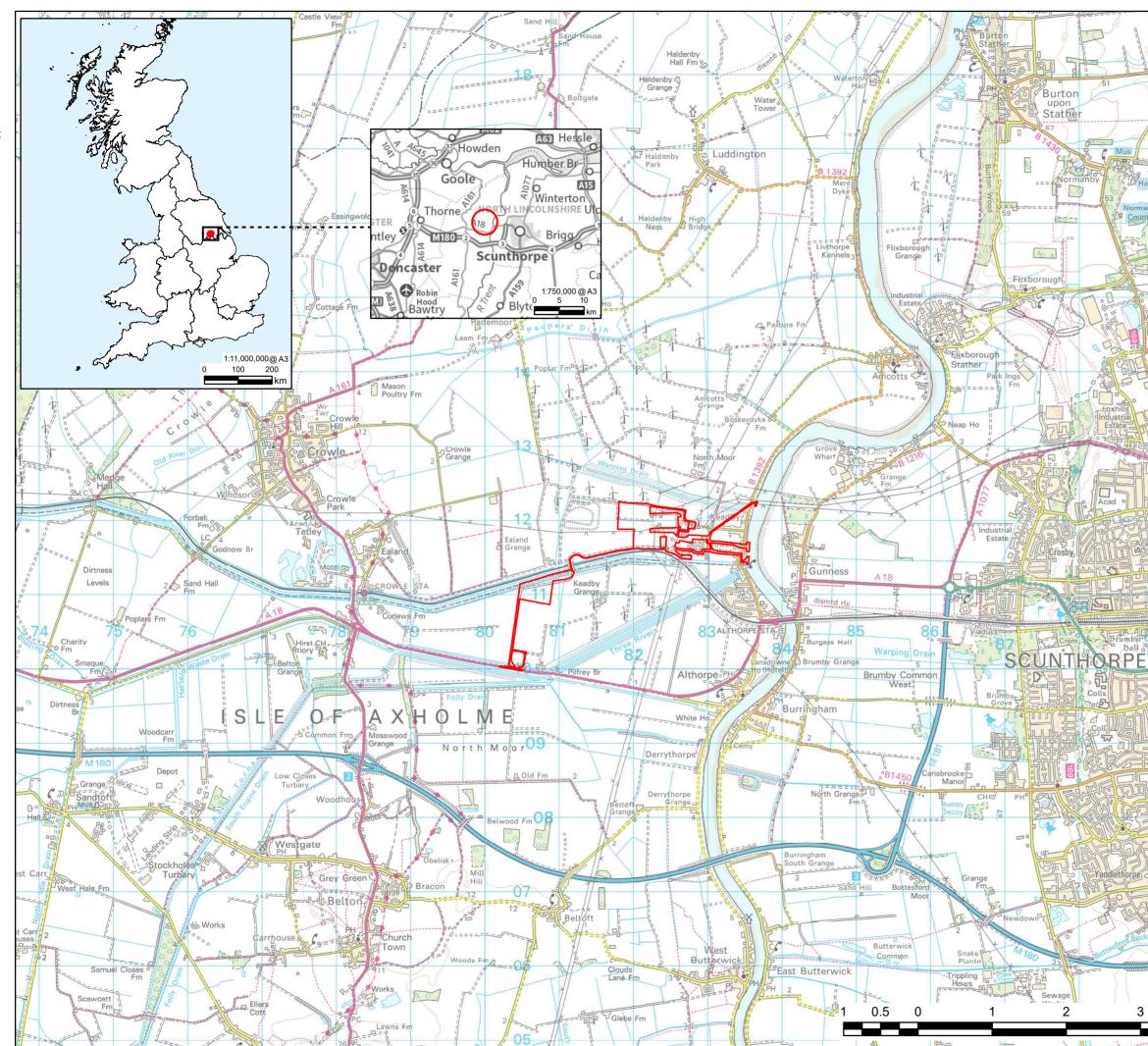


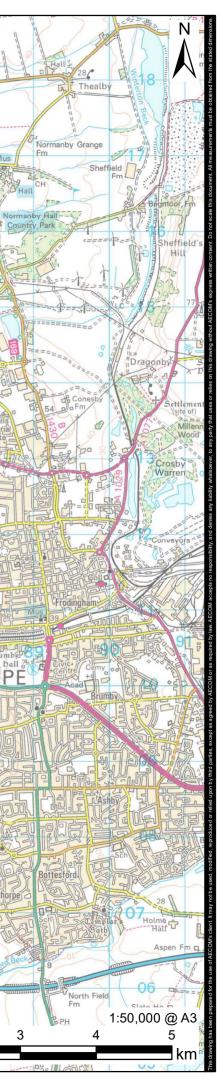


A collaboration between SSE Thermal and Equinor

# **APPENDIX A: PLAN SHOWING ORDER LIMITS UPDATES**









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

#### APPLICANT

Keadby Generation Limited

### CONSULTANT

AECOM Limited 2 City Walk Leeds LS11 9AR T: 0113 391 6800 www.aecom.com

#### LEGEND

The Proposed Order Limits

#### NOTES

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The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order Regulation 5(2)(o) - Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

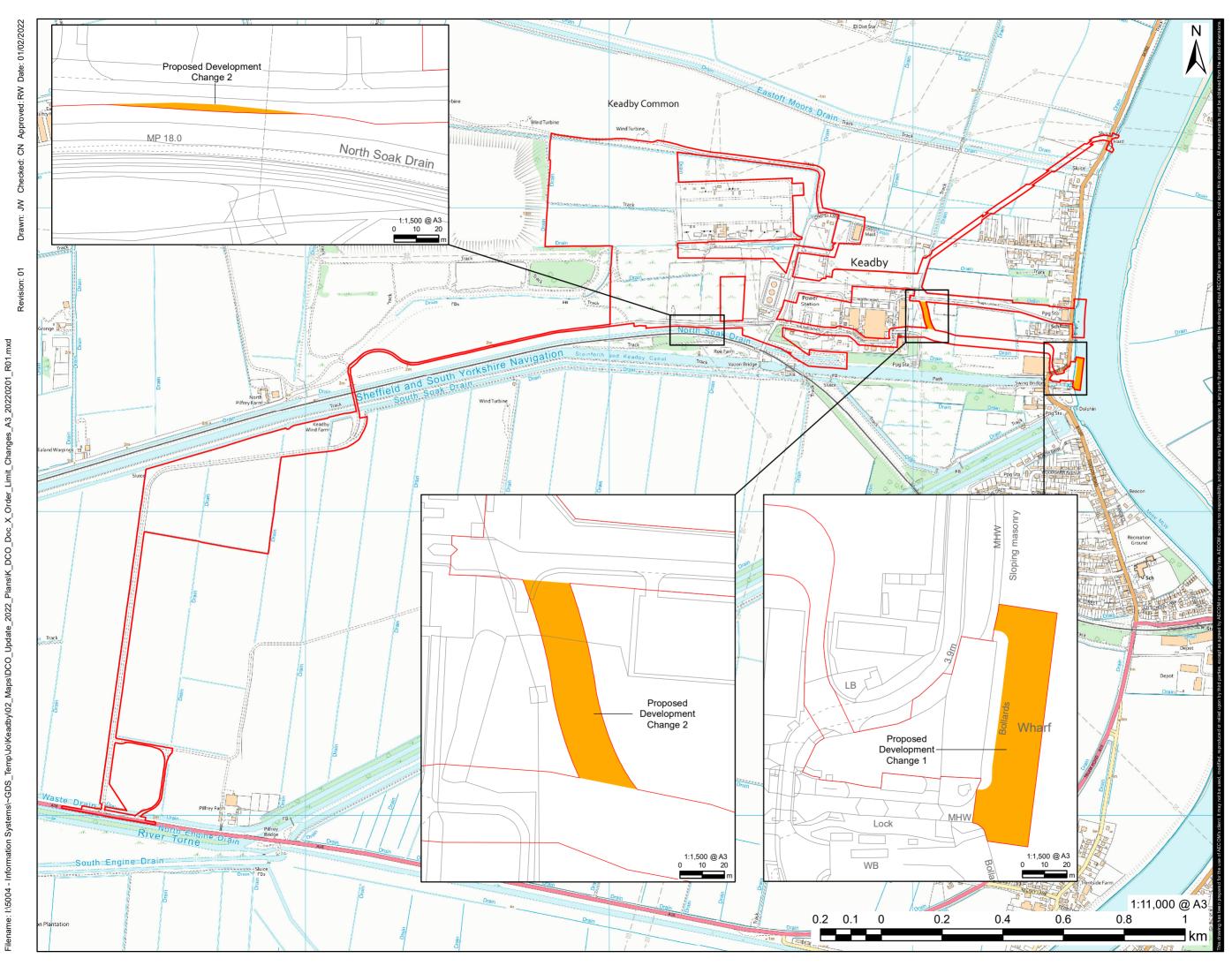
**ISSUE PURPOSE** 

DCO APPLICATION UPDATE PROJECT NUMBER

### 60625943

SHEET TITLE Site Location Plan

#### SHEET NUMBER





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

### APPLICANT

Keadby Generation Limited

### CONSULTANT

AECOM Limited 2 City Walk Leeds LS11 9AR T: 0113 391 6800 www.aecom.com

#### LEGEND



The Proposed Order Limits Proposed Extension to Existing Order Limits

#### NOTES

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The Keadby 3 (Carbon Capture Equipped Gas Fired Generating Station) Order Regulation 5(2)(o) - Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009

ISSUE PURPOSE FOR INFORMATION PROJECT NUMBER

60625943

SHEET TITLE Proposed Order Limits

#### SHEET NUMBER