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

Applicant's Comments on Relevant Representations & Additional Submissions

The Planning Act 2008

Applicant: Keadby Generation Limited

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GLOSSARY

Abbreviation	Description
ADMS	Atmospheric Dispersion Modelling System
AGI	Above ground installation
AIL	Additional Abnormal Indivisible Load
AQMAU	Air Quality Modelling and Assessment Unit
AS	Additional Submissions
BAT	Best available techniques
CCGT	Combined Cycle Gas Turbine
CCP	Carbon dioxide capture plant
CEMP	Construction Environmental Management Plan
CHP	Combined heat and power
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
FFL	Finished floor level
FRA	Flood Risk Assessment
HP	High pressure
HRSG	Heat Recovery Steam Generator
MW	Megawatts
MWe	Megawatts electrical
NLC	North Lincolnshire Council
NSIP	Nationally Significant Infrastructure Project
PCC	Proposed Power and Carbon Capture



PINS	Planning Inspectorate
RR	Relevant Representation
SoS	Secretary of State
WFD	Water Framework Directive
ZCH	Zero Carbon Humber



CONTENTS

1.0	Introduction	. 4
	1.1 Overview	
	1.2 The Proposed Development	. 4
	1.3 The Proposed Development Site	
	1.4 The Development Consent Process	. 9
	1.5 The Purpose and Structure of this Document	. 9
2.0	Response to Denise Steel RR	11
3.0	Response to John Carney RR	13
4.0	Response to Keadby with Althorpe Parish Council RR	14
5.0	Response to Maritime and Coastguard Agency RR	17
6.0	Response to Doncaster Metropolitan Borough Council RR	18
7.0	Response to Humberside Police RR	19
8.0	Response to National Grid Ventures RR	20
9.0	Response to Client Earth RR	24
10.0	Response to Historic England RR	26
11.0	Response to Marine Management Organisation RR	27
12.0	Response to National Grid Electricity Transmission PLC and National Grid	
Gas F	PLC RR	
13.0	Response to Natural England RR	44
14.0	Response to Network Rail RR	
15.0	Response to Northern Powergrid (Yorkshire) PLC RR	71
16.0	Response to UK Health Security Agency (formerly Public Health England)	
RR		
17.0	Response to Canal and River Trust Additional Submission	80
18.0	Response to Environment Agency Additional Submission	92
19.0	Response to Ministry of Defence Additional Submission	04
TAD	LES	
TAB	LES	
Table	e 8.1: National Grid Ventures' RR and Applicant's Response	21
	e 11.1: Marine Management Organisation's RR and Applicant's Response 2	
	e 12.1: National Grid Electricity Transmission PLC and National Grid Gas PLC'	
	nd Applicant's Response	
	e 13.1: Natural England's RR and Applicant's Response	
	e 14.1: Network Rail's RR and Applicant's Response	
	e 16.1: Public Health England's RR and Applicant's Response	
	e 17.1: Canal and River Trust RR and Applicant's Response	
	e 19.1: Environment Agency's RR and Applicant's Response	
	e 19.1: Ministry of Defence's RR and Applicant's Response	



1.0 INTRODUCTION

1.1 Overview

- 1.1.1 This Applicant's Comments on Relevant Representations & Additional Submissions Document (**Application Document Ref. 9.1**) has been prepared on behalf of Keadby Generation Limited ('the Applicant') which is a wholly owned subsidiary of SSE plc. 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 Zero Carbon Humber (ZCH) Partnership export pipeline and gathering network for onward transport to the Endurance saline aquifer 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 the



- 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 the 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 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 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');
- 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 above ground installation (AGI) for National Grid Carbon's apparatus (Work No. 7B);
- new permanent access from 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 Applicant will be responsible for the construction, operation (including maintenance) and eventual decommissioning of the Proposed Development, with the exception of the National Grid Gas compound works (Work No. 2A) within the gas reception facility, the works within the National Grid Electricity Transmission 400kV substation (part of Work No. 3A), the works within the Northern Powergrid 132kV substation (part of Work No. 3B), and the National



- Grid Carbon compound works (**Work No. 7B**), which will be the responsibility of those named beneficiaries.
- 1.2.6 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. ZCH Partnership will be responsible for the construction, operation and decommissioning of the carbon dioxide gathering 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 applications by third parties, such as the Humber Low Carbon Pipeline DCO Project by National Grid Ventures.
- 1.2.7 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.
- 1.2.8 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).

December 2021 Page 7 AECOM



1.3.4 The Proposed Development Site includes other areas including:

- high pressure gas pipeline to supply the CCGT including a gas compound for National Grid Gas's (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 crossing 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 Development Consent Process

- 1.4.1 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.
- 1.4.2 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 Secretary of State. PINS is now examining the Application and will make a recommendation to the Secretary of State, who will then decide whether to make (grant) the DCO.

1.5 The Purpose and Structure of this Document

- 1.5.1 This document is intended to summarise the Applicant's present position on the matters raised in all relevant representations ('RR') submitted in respect of the Application. This document also treats three Additional Submissions ('AS') as if they were RRs and these are covered later in the document.
- 1.5.2 The full text of the RR or AS and the Applicant's comments on each RR or AS are provided in separate sections of this document dedicated to each that was received. These are as follows and the ordering corresponds to the order in which they appear on the Planning Inspectorate project web page:
 - Section 2 Response to Denise Steel RR (RR-015);
 - Section 3 Response to John Carney RR (RR-014);
 - Section 4 Response to Keadby with Althorpe Parish Council RR (RR-005);
 - Section 5 Response to Maritime and Coastguard Agency RR (RR-007);
 - Section 6 Response to Doncaster Metropolitan Borough Council RR (RR-002);
 - Section 7 Response to Humberside Police RR (RR-004);
 - Section 8 Response to National Grid Ventures RR (RR-009);
 - Section 9 Response to Client Earth RR (RR-001);
 - Section 10 Response to Historic England RR (RR-003);
 - Section 11 Response to Marine Management Organisation RR (RR-006);
 - Section 12 Response to National Grid Electricity Transmission PLC RR (RR-008)
 - Section 13 Response to Natural England RR (RR-010);
 - Section 14 Response to Network Rail RR (RR-011);



- Section 15 Response to Northern Powergrid (Yorkshire) PLC RR (RR-012);
- Section 16 Response to Public Health England RR (RR-013);
- Section 17 Response to Canal and River Trust AS (AS-001);
- Section 18 Response to Environment Agency AS (AS-002); and
- Section 19 Response to Ministry of Defence AS (AS-003).



2.0 RESPONSE TO DENISE STEEL RR

2.1.1 The RR provided by Denise Steel (RR-014) is as follows:

"Concerns over the light pollution that may result from this during the build stage and subsequently afterwards. For example, Keadby 2 is lit up excessively in my opinion and disrupts my enjoyment of my house and garden. Even after discussions with Jade Fearon, the representative I contacted several times regarding the excessive light, no noticable improvement has been made. The lights are blindingly bright even at a distance so if Keadby 3 was the same it would be untolerable. Perhaps you could consider planting a double line of trees to interrupt the passage of light across the open countryside towards Amcotts."

- 2.1.2 The Applicant notes the concerns regarding the visual impact of the Keadby 2 Power Station site which is currently undergoing commissioning. In relation to the construction and commissioning stages of Keadby 2 we recognise that lessons may be applicable to the construction and commissioning of the Proposed Development. We would also point out that Keadby 2 is not yet operational and the lighting is more prominent before the building is clad. Keadby 2 was also consented under a different planning regime with different controls.
- 2.1.3 Chapter 14: Landscape and Visual Amenity of ES Volume I (APP-051) provides an assessment of night-time lighting effects and has taken account of permanent lighting associated with Keadby 1 and Keadby 2 Power Station, once this is operational. The effects of construction lighting for Keadby 2 Power Station have not been considered as such lighting will not form part of the landscape setting during either construction or operation of the Proposed Development but will be removed following commissioning of Keadby 2 Power Station. It is currently expected that Keadby 2 cladding will be installed February 2022 and permanent lighting installed by late 2022.
- 2.1.4 Lighting effects have been reviewed in the landscape and visual assessment, to determine effects on the landscape character of the Proposed Development Site and the surrounding area. Table 14.5: Representative Viewpoints of ES Chapter 14 provides an overview of the baseline conditions related to each of the selected viewpoints. This includes a summary of the view at night-time. It is concluded that at the majority of viewpoints, there are low levels of permanent lighting at night-time, including at Viewpoint 4 and 10 which are located between the Proposed Development Site and Amcotts.
- 2.1.5 Section 14.5 of Chapter 14 explains the development design, impact avoidance and mitigation measures that have been considered to reduce significant effects relating to visual amenity as a result of the Proposed Development including the Indicative Lighting Strategy (APP-040) submitted with the Application. Paragraph 14.5.2 outlines that during the construction



and operation stages of the Proposed Development, lighting will be designed to reduce unnecessary light spill outside of the Proposed Development Site boundary. Construction temporary lighting will be designed so that excessive glare is minimised outside of the construction site as far as reasonably practicable and permanent external lighting during the operational phase would seek to reduce light pollution and the visual impact on the local environment by following the principles set out in Section 4 of the Indicative Lighting Strategy (APP-040). Requirement 7: External Lighting of the draft DCO secures the requirements for external lighting for the Proposed Through the use of the Indicative Lighting Strategy, no Development. significant effects are identified from construction or operational lighting. The Applicant acknowledges that landscaping measures including tree planting can provide visual screening and is willing to consider the planting of additional trees on Site in non-operational areas. However, such planting would not be for the purposes of mitigating effects of construction lighting for the Proposed Development in the direction of Amcotts village, as no significant effects are predicted.



3.0 RESPONSE TO JOHN CARNEY RR

3.1.1 The RR provided by John Carney RR (RR-015) is as follows:

"This representation is a personal and public matter in that the Appliction land there is statutory Highway that has propably existed sinc ethe Statute of Merton and has been diverted in the past by Acts of parliament The Stainforth and Stainforth and Keadby Canal was built on moors and waste The proprietor were required to fence the Undertaking. The commoners were required by section 19 of the S&K Canal Act to commoners to surrender the interest in to the Lords of the manor and so much of the purchase money to be used by the survey of Highway for the parish on highways decided at a special of the meeting vestry On both sides of the canal, the act required required soak drains to prevent flooding fronm the Canal. Between Soak Drain, and later the Inclosed land was a way to maintain the Undertaking. The S&K Canal Act Section 53 Cap 117 gives all persons the use of the way with Horses Cattle and Carriages SSE Keadby Built a bridge stantion on that way without section 147-148 SSE Keadby were granted planning permission planning bridge the way And then obtained planing from officers to not Bridge and without a section 147 -148 TCPA (1990) application stopped up the highway."

- 3.1.2 This representation does not appear to identify any specific issues on the Proposed Development which is the subject of the DCO, nor any specific procedural elements related to the DCO.
- 3.1.3 The Proposed Development utilises existing private road and highway infrastructure which already serves the existing Keadby Power Station and which is also being used for the purposes of constructing Keadby 2. In this respect the DCO application proposes no significant alterations to the status of the existing private roads or public highway serving or comprised in the application site.
- 3.1.4 The Access and Public Rights of Way plans, submitted with the application, identify the status of the various roads within and adjoining the application site which comprise private roads (not accessible to the public) and public highway. The Access and Public Rights of Way Plans have been prepared using publicly available information from North Lincolnshire Council regarding the status of the highway network in the area. It is considered that the Access and Public Rights of Way plans are accurate in terms of identifying the status of the various roads within and serving the application site.



4.0 RESPONSE TO KEADBY WITH ALTHORPE PARISH COUNCIL RR

4.1.1 The RR provided by Keadby with Althorpe Parish Council (RR-005) is as follows:

"Concerns on Water Environment and Flood Risk as water is possibly to be abstracted from the Stainforth and Keadby Canal which could require the water in the canal to be kept artificially high to meet this requirement Landscape and Visual Impact of a third power station in the area. Concerns on the possible Impact on Air Quality"

- 4.1.2 The Applicant has been engaging with Keadby with Althorpe Parish Council about their concerns. A working group has been convened, facilitated by SSE, with three representatives of the parish council, and a number of attendees from SSE and the project team. The first meeting was held on 14 December 2021.
- 4.1.3 Keadby Power Station currently holds three Water Abstraction Licences; a license to abstract from the Stainforth and Keadby Canal for cooling for Keadby 2 Power Station and process water for Keadby 1 Power Station (MD/028/0083/014) and a licence for abstraction from the River Trent for the cooling of Keadby 1 Power Station.
- 4.1.4 The Applicant has outlined to the Parish Council working group that the proposed abstraction would be delivered through water efficiency measures proposed by the Canal and River Trust, rather than the abstraction of additional water into the canal system. This would be achieved by a modification to the top of the existing lock gate to prevent water (which otherwise flows directly into the River Trent) being lost from the canal, thus allowing beneficial use for the Proposed Development, before being discharged to the River Trent.
- 4.1.5 An overview of how the canal is managed over its course from the River Don to the River Trent has also been provided to the Parish Council including an explanation of the system in use by the Canal and River Trust to maintain 'normal water levels' for navigation purposes, as well as the actions taken in local drains by the internal drainage board in order to manage water levels during periods of heavy rainfall. The Applicant has clarified their understanding to the Parish Council that the canal system does not form any part of the flood alleviation system and that water levels in the canal will not be maintained at higher levels than currently to facilitate the proposed abstraction. The water level in the canal will remain the same as the current level, which is set by the Canal and River Trust to maintain it as navigable. There is therefore assessed to be no change to flood risk or flooding effects as a result of the proposed abstraction. This position is also agreed by the



- Canal and River Trust, who have automatic level controls installed at Locks throughout the canal network to regulate and maintain the water level.
- 4.1.6 The Applicant has explained to the working group the approach taken to assessing landscape and visual effects that has been used for the Proposed Development, the significant effects on visual amenity predicted at three local viewpoints and explained why the opportunity for mitigating these significant effects on the visual amenity as a result of construction, operation and decommissioning of the Proposed Development are limited due to the size and scale of the key structures, recognising that the addition of landscape features such as trees would have minimal effect in screening the Proposed Development structures due to their size.
- 4.1.7 Rather, an integrated design approach that considers the massing and arrangement of taller structures within the Proposed PCC Site to minimise potential visual effects is considered to have potential to minimise visual impacts of the Proposed Development. Implementation of detailed design parameters is proposed to be secured by a requirement of the draft DCO (APP-005) including siting, layout, scale and external appearance, and including consideration of the colour, materials and surface finishes of permanent buildings and structures. These details will need to be approved by the Local Planning Authority before construction of the Proposed Development can commence... Retention of existing vegetation and tree planting to soften visual impact is described in the Landscaping and Biodiversity Management and Enhancement Plan (APP-039).
- 4.1.8 The Applicant has also provided further explanation to the Parish Council regarding the approach taken to assessing impacts on air quality at this concept stage of the design, utilising conservative assumptions on emissions and impacts which will be reviewed and refined as appropriate at the later detailed design stages when effects will need to be demonstrated to be no worse than those that have been assessed and presented in the DCO application (i.e. applying Rochdale Envelope principles).
- 4.1.9 Information relating to the air quality impacts of the Proposed Development and in particular the conservative assumptions used (para 8.6.19) can be found in Chapter 8: Air Quality of ES Volume I (APP-051). Emissions assessed include construction dust, exhaust emissions from on-site machinery, exhaust emissions from construction road vehicles and process emissions from the Proposed Development, once operational. The assessment concluded that even when using conservative assumptions, the modelled results at all human health receptors within 2km are assessed as negligible adverse and therefore not significant (refer to Table 8.13 in APP-051).
- 4.1.10 An Environmental Permit application has been made to the Environment Agency in July 2021 which is undergoing duly made checks. The permit will



set emission limits for releases to air from the operational Proposed Development together with required monitoring and control techniques in accordance with the use of Best Available Techniques.



5.0 RESPONSE TO MARITIME AND COASTGUARD AGENCY RR

5.1.1 The RR responded by the Maritime and Coastguard Agency (RR-007) is as follows:

"The MCA has an interest in the works associated with the marine environment, and the potential impact on the safety of navigation, access to ports, harbours and marinas and any impact on our search and rescue obligations. We would like to be consulted on the establishment of any infrastructure or works in or over the marine environment, and any Harbour Orders providing statutory powers for the ongoing safe operation of the facility. For works required in or over the marine environment, a Marine Licence may be required under the Marine and Coastal Access Act 2009, at which time the MCA will be invited to comment on the licence application from the safety of navigation safety perspective. In addition, the MCA would point the developers in the direction of the Port Marine Safety Code (PMSC) and its Guide to Good Practice; they would need to liaise and consult with any relevant Statutory Harbour Authority to develop a robust Safety Management System (SMS) for the project under this code."

5.1.2 The Applicant acknowledges the response from the Maritime and Coastguard Agency. The Applicant notes that in line with the Planning Inspectorate Advice Note 11, it has applied for a Marine Licence which is 'deemed' within the draft DCO (APP-005). Reference should be made to the Statement of Common Ground (SoCG) (Document 8.10), also submitted at Deadline 1 which sets out that all matters in the Relevant Representation are now agreed between the Parties.



6.0 RESPONSE TO DONCASTER METROPOLITAN BOROUGH COUNCIL RR

6.1.1 The RR provided by Doncaster Metropolitan Borough Council (RR-002) is as follows:

"DMBC has no objections to the documentation or pre-examination of this development, but would like to be re-consulted when full examination begins. The documents requested by DMBC in relation to air quality have been submitted and satisfactorily address the concerns regarding the impact of the proposal on the nitrogen dioxide concentrations in Thorne Town Centre. A Transport Assessment (contained within the ES) has been submitted in support of this application, this has been reviewed. The numbers of construction worker vehicles associated with this development, which will impact on the highway network in the traditional peak hours in Doncaster, is negligible and will not be discernible within daily traffic variations. All Construction vehicles (HGV's) will access/depart the site via the M180 J2, this will be controlled by a HGV Routing Plan and will not impact on Doncaster's local highway network. Other consultees were contacted and have not raised any comments or objections."

- 6.1.2 The Applicant notes that DMBC has no objections and that they have previously been supportive of the principle of the Application.
- 6.1.3 The Applicant has considered air quality effects at Thorne Town within the air quality assessment and the results are provided at Appendix 8B: Air Quality Operational Phase (APP-064). It was found that the environmental effects from operation of the Proposed Development have been identified as not significant at all human receptors, including at the Thorne Town receptor.
- 6.1.4 The Applicant considers that the effects of construction traffic on all road sections and junctions are anticipated to be negligible and thus not significant.
- 6.1.5 The generation of traffic during Proposed Development operation would be minimal when compared to the construction phase. Therefore, Proposed Development operational phase traffic effects are also considered to be negligible and thus not significant.



7.0 RESPONSE TO HUMBERSIDE POLICE RR

7.1.1 The RR provided by Humberside Police (RR-004) is as follows:

"Thank you for consulting Humberside Police on the Keadby 3 Low Carbon Gas Power Station Project, Planning Inspectorate Reference EN010114. I can confirm that Humberside Police have viewed the consultation report and appendices and have no concerns or comments to make. Tracy Rokahr Designing out Crime Officer Humberside Police"

7.1.2 The Applicant notes Humberside Police's RR confirming they have no concerns or comments to make.



8.0 RESPONSE TO NATIONAL GRID VENTURES RR

8.1.1 The RR provided by National Grid Ventures and the Applicant's Response is provided in Table 8.1 below:

Table 8.1: National Grid Ventures' RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
This is a Relevant Representation submitted by National Grid Ventures (NGV) requesting that NGV are treated as an Interested Party throughout the Examination process of the Development Consent Order (DCO) application for The Keadby 3 Low Carbon Gas Power Station Project (PINS ref: EN010114). NGV is a ringfenced division of National Grid plc, responsible for both developing and operating businesses in our UK and US territories. National Grid Carbon (NGC) as an NGV business is proposing to develop Humber Low Carbon Pipelines (HLCP); the deployment of a terrestrial pipeline network in the Humber region.	All noted – no response required.
HUMBER LOW CARBON PIPELINES (HLCP) PROJECT	All noted – no response required.
The Humber Low Carbon Pipelines Project (HLCP) intends to establish a pipeline network in the region to transport carbon dioxide (CO2) and hydrogen (H2) to facilitate Carbon Capture and Underground Storage CCUS, supporting the ambition of the Zero Carbon Humber (ZCH) partnership to create the world's first net zero industrial cluster. NGV are currently investigating potential corridors within which separate pipelines could be routed and will be carrying out surveys and consultations to help inform these corridors.	
HLCP is in the pre-application stage, with stakeholder engagement underway. This includes dialogue with the Planning Inspectorate over the potential form and content of its	



Text from Relevant Representation	Applicant's Responses
associated future Development Consent Order application(s), which will be inclusive of the terrestrial environment only to Mean Low Water Springs (MLWS). A non – statutory consultation on proposals is anticipated by the end of the Summer 2021.	
NGV is part of the East Coast Cluster (ECC) bid, combining Humber and Teesside regions, as recently submitted to the department of Business Energy and Industrial Strategy (BEIS) as part of the Carbon Capture and Storage (CCUS) cluster sequencing consultation. BP, as lead transportation and storage operator for this cluster, have responsibility for the end to end full chain process and associated Endurance store offshore.	
NGV'S INTEREST IN THE KEADBY 3 LOW CARBON GAS POWER STATION PROJECT NGV's role in the deployment of CCUS at scale in the Humber means that close working with emitters, such as Keadby 3 is key. The HLCP network is the proposed infrastructure for transporting the carbon captured at the power station that is the subject of this application to the interface at landfall with the offshore pipelines for onward transportation to the Endurance saline aquifer for storage.	The Applicant notes that the Keadby 3 Low Carbon Gas Power Station Project is an emitter that proposes to connect to the HLCP. The Keadby 3 Low Carbon Gas Power Station Project will connect to the HLCP as detailed in Work no. 7 of the draft Development Consent Order (APP-005). Regarding the comment that 'Work No. 7 does not appear on the Works Plans', Work 7 occupies the land within the area denoted 7A, 7B, or both. No change to the Works Plans (APP-012) is felt necessary.
NGV's interest relates to the interfaces between the Keadby 3 project and HLCP, which includes the proposed CO2 export connection and associated Works. For the avoidance of doubt NGV has no interest in the gas supply nor the electricity	The Applicant is happy for NGV to be consulted on any approval sought from the relevant planning authority under

Text from Relevant Representation	Applicant's Responses
connection elements of the project. The HCLP network will also transport hydrogen.	requirement 5(7) and will include this drafting in the next revision of the Draft DCO (likely at Deadline 2).
NGV notes that the Applicant considered but rejected the use of hydrogen as a fuel for this power station (ES paragraph 4.1.5 [APP-047]) but that in April 2021 it announced that it is separately proposing to construct a fully hydrogen-fuelled power station nearby and also convert Keadby 2 to use a mix of hydrogen and natural gas.	The Applicant will give the NGV protective provisions due consideration when they are received. The Applicant has consulted on a Statement of Common Ground with NGV and accommodated their review comments and this is submitted at Deadline 1.
Work No. 7 in the draft Development Consent Order (dDCO) [APP-005] represents the point at which the authorised development will deliver pressurised CO2 to NGV's network, although the interface between NGV and the Applicant has yet to be agreed. Work Nos. 7A and 7B are shown on sheets 14 and 15 of the works plans; the remainder of Work No. 7 does not appear on the works plans. Detailed design for Work No. 7 is governed by requirement 5(7); NGV would wish to be consulted on any approval sought from the relevant planning authority under this requirement. Protective provisions are included in the dDCO for National Grid Gas and National Grid Electricity Transmission; NGV would additionally wish to see protective provisions for its apparatus.	
NGV would be happy to conclude a Statement of Common Ground with the Applicant	



9.0 RESPONSE TO CLIENT EARTH RR

9.1.1 The RR provided by Client Earth (RR-001) is as follows:

"We understand from the application, including the Environmental Statement, that the Applicant's proposal is to operate the power plant commercially only when the associated carbon capture, transport and storage infrastructure are also in commercial operation, with the effect that at least 90% of the carbon emissions generated by the power plant will not be emitted into the atmosphere and stored permanently underground. However, we are concerned that the terms of the proposed draft DCO do not adequately ensure that this minimum level of emissions will be captured and permanently stored and that the carbon capture, transport and storage infrastructure will be used throughout commercial operations. We would therefore suggest that the proposed scope of para 33 of the Requirements Schedule to the draft DCO should be expanded to include clear requirements that: (i) at least 90% of the total carbon emissions generated by the plant must be captured at all times during its commercial operation, and (ii) captured emissions will be stored permanently in the proposed offshore geological storage site."

- 9.1.2 The Applicant acknowledges the response from Client Earth.
- 9.1.3 For reference, Requirement 33 (Carbon capture plant) of the draft DCO (APP-005) states the following:
 - "33.—(1) No part of the authorised development may commence, save for the permitted preliminary works, until details of the following have been submitted to and approved by the relevant planning authority-
 - (a) evidence that development consent is in place for the construction of the National Grid Carbon Gathering Network;
 - (b) evidence that a carbon dioxide storage licence for the intended storage site for the National Grid Carbon Gathering Network is in place; and
 - (c) evidence that an environmental permit is in place for the authorised development.
 - (2) Prior to the start of commissioning of the authorised development, the undertaker must not (save where the benefit of the Order has been transferred pursuant to article 66) without the consent of the Secretary of State—
 - (a) dispose of any interest in the land required for Work No. 1C or Work No. 7; or
 - (b) do anything, or allow anything to be done or to occur, which may reasonably be expected to diminish the undertaker's ability, within two years of such action or occurrence, to prepare Work No. 1C and Work No. 7 for construction.



- (3) Work No. 1A may not be brought into commercial use without Work No. 1C and Work No. 7A also being brought into commercial use."
 - 9.1.4 Regarding point (i) made by Client Earth, as discussed within Chapter 4: The Proposed Development (APP-047), the Proposed Development will be designed to capture at least 90% of the carbon dioxide that would otherwise be emitted, based on the contract and rules to be agreed with Government on how this is to be delivered, measured and monitored. The plant design is expected to achieve higher than 90% capture during normal operating conditions but the rate may be lower outside of normal operating conditions (e.g. at start-up) or in response to events outside of the Applicant's control. As such, the Applicant cannot amend the wording of the draft DCO Requirement 33 to state that 'at least 90% of the total carbon emissions generated will be captured at all times during its commercial operation'. The Environmental Permit would control the capture rate and how this is to be delivered, measured and monitored, including any limited operating exceptions.
 - 9.1.5 Regarding point (ii) made by Client Earth, the captured carbon dioxide would indeed be permanently stored in the proposed offshore geological storage site. It is intended to connect the Proposed Development to the East Coast cluster, the operators of which will intend to inject the captured carbon into the Endurance saline aquifer in the North Sea. The drafting of Requirement 33 requires that a carbon dioxide storage licence for an offshore geological storage site has to be in place before the Proposed Development can commence construction. The licence will regulate the permanent storage of the carbon dioxide. The storage site is not operated by the Applicant. As such, the Applicant cannot amend the wording of the draft DCO Requirement 33.



10.0 RESPONSE TO HISTORIC ENGLAND RR

10.1.1 The RR provided by Historic England (RR-003) is as follows:

"We are Government's adviser on the Historic Environment. We are currently in dialogue with the applicants towards a Statement of Common Ground. This will need to be narrowly focused on memorialising our advice and their responses up to submission. In our SoCG we would not look to double up on the role of the North Lincolnshire Council Archaeologist as regards on-site impacts (beyond us having given some technical advice on methods). We would not look to certify the completeness or quality of work done though SoCG but simply agree where the material submitted for examination has addressed the scope of matters highlighted in our advice. We do not object to the grant of DCO."

10.1.2 The Applicant acknowledges the response from Historic England. Reference should be made to the Statement of Common Ground (Document 8.5), also submitted at Deadline 1 which sets out matters agreed between the Parties.



11.0 RESPONSE TO MARINE MANAGEMENT ORGANISATION RR

11.1.1 The RR provided by the Marine Management Organisation and the Applicant's response is provided in Table 11.1 below.

Table 11.2: Marine Management Organisation's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
The MMO's role in Nationally Significant Infrastructure projects (NSIPs)	All noted – no response required.
The MMO was established by the Marine and Coastal Access Act 2009 (the "2009 Act") to make a contribution to sustainable development in the marine area and to promote clean, healthy, safe, productive and biologically diverse oceans and seas.	
The responsibilities of the MMO include the licensing of construction works, deposits and removals in English inshore and offshore waters and for Northern Ireland offshore waters by way of a marine licence. Inshore waters include any area which is submerged at mean high water spring ("MHWS") tide. They also include the waters of every estuary, river or channel where the tide flows at MHWS tide. Waters in areas which are closed permanently or intermittently by a lock or other artificial means against the regular action of the tide are included, where seawater flows into or out from the area.	
In the case of NSIPs, the Planning Act 2008 (the "2008 Act") enables DCO's for projects which affect the marine environment to include provisions which deem marine licences. As a prescribed consultee under the 2008 Act, the MMO advises developers during preapplication on those aspects of a project that may have an impact on the marine area or those who use it. In addition to considering the impacts of any construction, deposit or removal within the marine area, this also includes	

Text from Relevant Representation	Applicant's Responses
assessing any risks to human health, other legitimate uses of the sea and any potential impacts on the marine environment from terrestrial works.	
Where a marine licence is deemed within a DCO, the MMO is the delivery body responsible for post-consent monitoring, variation, enforcement and revocation of provisions relating to the marine environment. As such, the MMO has a keen interest in ensuring that provisions drafted in a deemed marine licence ("DML") enable the MMO to fulfil these obligations.	
Further information on licensable activities can be found on the MMO's website here. Further information on the interaction between the Planning Inspectorate and the MMO can be found in our joint advice note 11 Annex B here.	
The Proposed Development	All noted – no response required.
The DCO Application is for the development of a combined cycle gas turbine (CCGT) power station near the existing Keadby 1 and Keadby 2 power stations, near Scunthorpe in North Lincolnshire. The preferred option is for water abstraction from the Stainforth and Keadby canal, however, an alternative option has been considered which is to use the existing Keadby 1 connection from the River Trent. All treated effluent would be directed by the existing Keadby 1 infrastructure (modified) to the River Trent. Any temporary works within the River Trent to the	

Text from Relevant Representation	Applicant's Responses
existing infrastructure would be enclosed by a temporary cofferdam.	
General Comments	All noted – no response required.
The MMO's interest in this project is for the elements falling below Mean High Water Springs (e.g. water abstraction and construction of a cofferdam).	
The MMO note that the plant is designed to be able to operate with a postcombustion carbon capture plant (CCP) installed but the design, construction and operation of the carbon dioxide export and storage element of the development are not included within this DCO and will form part of a separate DCO application, to which the MMO expect to be consulted on.	
The MMO would like to advise that the following comments do not currently include advise provided by CEFAS's scientific advisors from fisheries and benthic specialists. Once this advice is received the MMO will provide comments to the Applicant and Examining Authority on any additional areas of concern.	
Draft Development Consent Order (DCO) and Deemed Marine Licence (DML)	Noted and the wording will be amended in our draft DCO to be submitted at Deadline 2.
Schedule 13, Part 1 (1,(4)(b)) gives the local office of North Shields. The local MMO office to the proposed development is	

Text from Relevant Representation	Applicant's Responses
Beverley office, Room 13, Ground Floor, Crosskill House, Mill Lane, Beverley, HU17 9JB.	
With regard to Schedule 13, Part 3 'Conditions Discharge' 29 (1) & (2) – The MMO disagrees with point (2) and the limit of determining an application for the discharge of a condition. While the MMO consider 3 months to be a reasonable period for determination, any restriction as set out in (2) hinders the ability of the MMO to carry out is regulatory responsibility. It is the position of the MMO that the MMO must not be subject to deemed approvals. This would lead to a disparity between licence issued under DMLs and those issued directly by the MMO and create an unlevel playing field across the regulated community.	The Applicant confirms that Schedule 13, Part 3 'Conditions Discharge' 29 (2) will be omitted in the updated draft DCO (APP-005) submitted at Deadline 2.
With regard to Schedule 13 Part 3 'Conditions' (24) MMO suggest amending 'District Marine Office' is amended to 'Local Enforcement Office' to align with Part 1 (1) 'Definitions' and (4) contact details.	Condition 11(b) of the DML secures the provision of a methodology for piling to the MMO as part of a marine method statement if Work No. 4b is proposed.
The MMO note that the Applicant has proposed a piling method statement. The MMO advise that if any piling is taking place below MHWS's then the MMO would need sight of this document and inclusion within the DML.	The piling method statement secured by Requirement 30 requires that no part of Work Nos. 1, 2, 4A, 7, 8B, or 9B can commence until a piling and penetrative foundation design method statement, informed by a risk assessment, has been submitted to and approved by the planning authority and requires that the planning authority must consult with the
With regard to Schedule 13 Part 3 'Conditions' (12) and (28) Bathymetric Surveys – The MMO request that both the pre and post-bathymetric surveys are also provided to the MMO for	Environment Agency on the method statement before giving such approval. As these works do not take place below MHWS, the MMO these do not form part of the DML.

Text from Relevant Representation	Applicant's Responses
review, as regulator of the marine environment it is important that we have sight of these documents. With regard to Schedule 13 Part 3 (11)(4) 'Conditions'. The MMO recommend the inclusion of a timescale for submission of the marine method statement to the MMO for review and consider 8 weeks is reasonable, this is in-line with other conditions in the DML (e.g. Condition 10).	Other minor wording issues noted by the MMO in paragraphs 4.1, 4.3 and 4.5 – 4.9 in their Relevant Representation are noted and will be amended in the next update of the draft DCO (APP-005) at Deadline 2.
The MMO note that there appear to be minor punctuation errors within the DML – Part 2 (4) has a bracket at the end of the sentence; and (10) a bracket within the opening sentence.	
With regard to Part 3 'Conditions' (10) The MMO request that the wording is amended to include the document must be sent 'to the MMO' for review.	
Schedule 13, Part 3 Condition (9(a)(i)) references condition 12. The MMO believes this should reference condition 13. In addition Condition (9(a)(ii)) references condition 13 whereas the MMO believes this should be condition 14. In turn condition (9(2)) needs updating to reference the correct conditions.	The Applicant has included a commitment restricting piling
The MMO note that piling is to be restricted to between 0700 and 1900. As suggested below in section 7.5 the MMO recommend that this included as a condition within the DML.	works in relation to Work 4B, such that they are not undertaken at night (i.e. piling will be restricted to between 07:00 and 19:00) in order to reduce the impact on species which tend to migrate at night/ in darkness such as river lamprey, juvenile/smolt salmon and juvenile/ (glass) eels in the Framework CEMP (APP-160) and that this is also documented in Appendix

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Text from Relevant Representation	Applicant's Responses
	20A: Schedule of Commitments (APP-098) of ES Volume II. The Applicant is happy to add the same commitment to the DML which will be updated at Deadline 2.
Environmental Statement The MMO note that it appears from the ES that no dredge and associated disposal at sea is planned. The MMO requests clarity on this from the Applicant as if any dredging or disposal at sea is required then this will need assessing and including within the DCO/DML.	The Applicant can confirm that no dredging or disposal at sea is proposed for the Proposed Development. Reference should be made to the Statement of Common Ground (Document 8.4), also submitted at Deadline 1 which sets out matters agreed between the Parties.
Coastal Processes The MMO refer to previous pre-application advice (SSE K3 - MMO & Cefas Minutes (04.05.2021).pdf) in which it was suggested that representative local examples of similar impacts could be presented as evidence where appropriate. The MMO note that there are some references to local analogues or previous licensing e.g., paragraphs 12.6.3 and 12.6.21, but these are not identified and so cannot be verified. The MMO recommend this should include a more complete reference in each case.	The Applicant acknowledges the response from the MMO on coastal processes. Reference should be made to the Statement of Common Ground (Document 8.4), also submitted at Deadline 1 which sets out matters agreed between the Parties and in which the Applicant has noted that the details requested were issued to the MMO, together with a technical note and slidepack, following the meeting with the Applicant's technical advisors (AECOM) on 04.05.21. The minutes and information provided have been included for completeness in Appendix 1 of the draft Statement of Common Ground submitted at Deadline 1.

Text from Relevant Representation

The MMO note that within this chapter of the ES no specific mention is made of cumulative or inter-related coastal process effects. While the MMO do not consider that there will be any likely significant impacts, it is important that a reference to an assessment (or scoping out) of these impacts is included within the report.

The details provided for the hydrodynamics have not been used to derive an assessment of potential scour and so it is not possible to determine whether (as per Section 12.6.20) scour protection would be required for the cofferdam for works within the River Trent. Volume I Chapter 5 details extension of either 10m (into the canal) or 22m (into the river) but do not provide any estimate of the associated hydrological changes or plausible scour dimensions. The embedded measures described to reduce impact are valid, but a quantification of the anticipated effect is still required to confirm the assessment of significance.

Appendix 11H Underwater Sound Effects on Fish

With regard to European eel's and paragraph 1.1.3 it is noted that "given that similar construction works have relatively recently been consented and completed within the Stainforth and Keadby Canal for the Keadby 2 Power Station cooling water intake, it is considered that it is reasonable to assume that European eel was considered for that consent and that no

Applicant's Responses

Cumulative or inter-related coastal processes effects have been considered in Chapter 19: Cumulative and Combined Effects (refer to Table 19.3).

In relation to potential use of a cofferdam in the River Trent - the Applicant confirms that a build-up of river silts and material occurs at the existing intake and outfall structures in the River Trent during shutdown periods and that annual maintenance is required and is undertaken under existing permissions. Consequently, a build up of river silts (rather than scour of river silts) would typically be expected in the event that a cofferdam in the river is required for a short-period.

If any localised scour were to occur, it would be likely to be highly localised owing to the tidal energies present in the Trent which result in a dynamic environment that would enable quick infilling. The impacts associated with potential scour are anticipated to be minimal and therefore not significant due to the short duration of the cofferdam works and given the scale of the River Trent.

The Applicant acknowledges the response from the MMO on this matter. The Stainforth and Keadby Canal drains into the River Trent but is not within the marine environment and impact to eels within the canal is therefore outside the remit of the MMO.

The Canal and River Trust has responsibility for the impacts on eels in the canal and the draft SoCG with the Canal and River

Text from Relevant Representation	Applicant's Responses
impact on conservation status was considered likely. Given this, it is considered that this presumption can be re-applied for the Proposed Development". The MMO would like to highlight that it is important to ensure that all aspects of the proposed works are appropriately assessed.	Trust submitted at Deadline 1 sets out the matters agreed between the Applicant and the Canal and River Trust in relation to protection of eels for Work 4A.
The MMO note that a number of assumptions on the cofferdam construction have been made (e.g. paragraph 1.2.2 in Appendix 11H). For example, it is proposed that vibratory piling will be used where reasonably practicable, although percussive piling may be required to drive the final stages of the pile. The cofferdam would require approximately 100 m of sheet piles, which equates to approximately 200 piles. It is estimated that each pile will take 1-2 hours to install, depending on conditions, and that 4-5 piles can be installed per day based on the core construction working hours from 07:00 to 19:00. The estimated piling installation time (vibratory and impact) for the cofferdam will be 25 days.	
As per paragraph 2.1.5 - "To determine whether impact piling activities are likely to generate sound levels which may exceed the sound thresholds of fish, literature values of the zone of influence, based on geometric spreading calculations for impact piling of a very wide range of pile types have been used (as agreed with by AECOM with regulators previously for the Uig Harbour Redevelopment EIA, see AECOM, 2019). These literature values, provided in Table 2 of Appendix 11H, include predicted impact zones for large tubular piles, known to	The Applicant acknowledges the response from the MMO on underwater sound effects on fish. The Applicant notes that where geometric spreading calculations are adopted, the level of 'site specificity' possible is limited because the only variables that can be selected for this method of estimating transmission loss (TL) in water are water depth and the sound wave coefficient (which is related to water depth). The Applicant has therefore provided calculations for



Text from Relevant Representation

generate high sound levels, and so this represents a worst-case that covers sound levels produced during the installation of the sheet piles used to construct a cofferdam". The MMO note that there are some issues with this approach. Firstly, noise modelling is project/site specific. Secondly, a simple spreading calculation would only be able to give an estimation (i.e. the order of magnitude) for the single strike sound exposure level, and the root-mean-square (rms) sound pressure level (SPLrms). However, for assessing the peak pressure or the cumulative sound exposure level (SELcum), a simple propagation model may not be sufficient. Furthermore, the predictions depend

on the adequacy/appropriateness of the modelling undertaken (i.e. the chosen value of N, and whether this can be considered conservative, and the chosen source level/s). The MMO suggest that further consideration of the above is required.

Furthermore, the MMO note that there is a risk of impact on local fish receptors, particularly disturbance or displacement from the proposed piling works. The assessment identifies that the River Trent at the site location is approximately 150 m wide, therefore, there is the potential for effects across the full width of the river, including potential barrier effects to fish movement.

With regard to paragraph 9.5.12 and the Applicant's comment about piling works not being undertaken at night, including restrictions so that all piling will be restricted to between 0700 and 1900. The MMO welcome this addition as it will reduce the

Applicant's Responses

transmission loss, taking account of published literature, including consent applications for projects such as Uig in shallow water, which it is deemed are applicable for the Proposed Development.

The standard formula for estimating TL from underwater sound sources (Xavier, 2002) is:

$$TL = A \log (r) + B r + C$$

Where:

TL is the transmission loss at a distance r from the source.

A is the wave mode coefficient. For cylindrical waves A = 10 and spherical waves A = 20.

B is an attenuation factor that is dependent on water depth and sea bottom conditions.

C is a fixed attenuation due to acoustic screening. In open water this will be 0.

The use of cylindrical spreading (A=10) is generally suited to shallow-to-mid water depths, and spherical spreading (A=20) is generally applicable to deep water depths. Although the definition of deep versus shallow water is somewhat dependent on wavelength, published literature including Richardson (1995) suggests that depths <200m are commonly regarded as

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Text from Relevant Representation

risk of potential impact on species which tend to migrate at night/ in darkness such as river lamprey, juvenile/smolt salmon and (juvenile/(glass) eels. The MMO recommend this information is included within the DCO as a condition on the DML.

It is noted that the underwater noise assessment undertaken in Appendix 11H focuses on the relevant species associated with the River Trent, rather than the Stainforth and Keadby Canal. If works are undertaken in the Canal, then the MMO consider it important to ensure that all aspects of the proposed works are

appropriately assessed, and that there are no detrimental impacts to the European eel.

Applicant's Responses

"shallow" and >2000m are commonly regarded as "deep" regardless of source wavelength. Cylindrical spreading (A=10) is more conservative (i.e. provides larger setback distances for a given source level) but is likely to be overly conservative. In addition, for low frequency sounds, longer wavelength sound will tend toward A=20. High frequency, shorter wavelength sound will tend toward A=10. For this reason, the wave coefficient used for the TL calculations for impact piling in shallow water, as appropriate for the Proposed Development, was A=20.

The MMO refer to the choice of the variable N, yet there is no variable denoted with this letter as applied to sound propagation calculations. In this instance, we have assumed the reviewer is referring to the A variable, the wave coefficient, which is the only variable that can be changed.

The exact piles to be used for the construction of the cofferdam are currently unknown, but the Applicant has assumed that these are likely to be sheet piles (of the PU32 Arcelor mittal or AZ-36 700N type). In the absence of detailed design information, in accordance with Rochdale Principles, a precautionary approach to the impact assessment has been adopted. Thus, it has been assumed that construction of any cofferdam in the River Trent will take place using piles that generate reasonable worst-case sound source levels.

Text from Relevant Representation	Applicant's Responses
	The value for the sound source level for impact hammer piling for the cofferdam, used to calculate TL, adopts a standard approach using accepted published literature values. The California Department of Transportation 2007 Compendium of Pile Driving Sound Data is a comprehensive collection of piling sound source data recorded by specified pile types and sizes, across a very large portfolio of projects. Where more than one value has been available for the same pile type, the higher sound level has been adopted to ensure a precautionary approach has been adopted in the calculations.
	The TL calculations and the subsequent impact assessment are based on the two metrics required – sound pressure level (SPL) and sound exposure level (SEL). Simple geometric spreading calculations can be used to determine cumulative sound exposure levels, as has been described in the assessment. These are then compared to the dual criteria - SPL and SEL – thresholds of the Popper et al., 2014 guidelines for fish.
	Throughout the assessment, a precautionary approach to assessing the impact of underwater sound on fish, particularly migratory fish in the river, has been adopted. Based on the findings, the Proposed Development has committed to a seasonal restriction on piling for the protection of migratory salmon; the species that is sensitive to underwater sound. Whilst it is acknowledged that alternative modelling approaches exist, such alternative approaches would not result

Text from Relevant Representation	Applicant's Responses
	in any material change in the assessment or conclusions, or to the embedded mitigation proposed and committed to within the draft DCO requirements i.e. adoption of a seasonal restriction for migratory salmon.
	Reference should be made to the Statement of Common Ground (Document 8.4), also submitted at Deadline 1 which sets out matters agreed between the Parties and where the Parties have agreed to work together to resolve outstanding matters.
Habitats Regulation Assessment The MMO defer to Natural England with regard to the HRA as the SNCB. The MMO recommend that if restrictions are required for activities contained in the DML (e.g. mitigation) that have not already been included, then the MMO must be informed directly (via Natural England or the Applicant) so discussion can be held regarding the addition of conditions on the DML.	The Applicant acknowledges the response from the MMO on the Habitats Regulations Assessment (HRA) and notes that no further dialogue is deemed necessary with the MMO in relation to the HRA, as acknowledged in the Statement of Common Ground (Document 8.4), also submitted at Deadline 1 which sets out matters agreed between the Parties.
The potential for in-combination effects could change and should be an iterative process, therefore the MMO would recommend that section 7 is updated regularly to reflect any new plans or projects which may need consideration. This will also ensure that the baseline remains appropriate	



12.0 RESPONSE TO NATIONAL GRID ELECTRICITY TRANSMISSION PLC AND NATIONAL GRID GAS PLC RR

12.1.1 The RR provided by Eversheds Sutherland International LLP on behalf of National Grid Electricity Transmission Plc and National Grid Gas Pls and the Applicant's response is provided in Table 12.1 below.

Table 12.3: National Grid Electricity Transmission PLC and National Grid Gas PLC's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
RELEVANT REPRESENTATION	Noted – no response required.
Representation by National Grid Electricity Transmission Plc to the Keadby 3 Low Carbon Gas Power Station Project ("the Project") National Grid Electricity Transmission Plc and National Grid Gas Plc (together "National Grid") wish to make a relevant representation to the Project in order to protect its position in relation to infrastructure and land which is within or in close proximity to the proposed Order limits. National Grid's rights to retain its apparatus in situ and rights of access to inspect, maintain, renew and repair such apparatus located within or in close proximity to the Order limits should be maintained at all times and access to inspect and maintain such apparatus must not be restricted.	
The documentation and plans submitted for the Project have been reviewed in relation to impacts on National Grid's existing apparatus and land interests located within this area.	Noted – no response required.
Electricity Apparatus	
The following assets, which form an essential part of the electricity transmission network in England and Wales are within, or in close proximity to, the Order limits:	
Substation	

Text from Relevant Representation	Applicant's Responses
Keadby 400kV Sub Station	
 Associated overhead and underground apparatus including cables 	
Overhead Lines	
 ZDA 400kV Over Head Line 	
4TM 400kV Over Head Line	
4ZQ 400kV Over Head Line	
4KG 400kV Over Head Line	
Other Apparatus	
Above and below ground associated apparatus including underground electricity cables within the scoping area.	
Gas Apparatus	
The following assets, which form an essential part of the gas transmission network in England and Wales are within, or in close proximity to, the Order limits:	
Keadby Power Station Gas Transmission Site;	
Feeder Main 7 – Eastoft to Keadby Power Station;	
Above and below ground associated apparatus.	

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Text from Relevant Representation	Applicant's Responses
National Grid note that protective provisions for its benefit have been included in the draft Order and are in the process of reviewing these provisions against its standard protective provisions.	The required Protective Provisions are currently being reviewed against the proposals by National Grid and any amendments required will be negotiated between the parties and the Examining Authority will be updated.
National Grid note that Work Nos. 2A and 3a relate to connections into the gas and electricity transmission systems respectfully and that National Grid have the benefit of these works under the draft DCO. National Grid are in the process are assessing these works to ensure adequate provision has been made for the connections.	The Applicant understands that National Grid are still assessing the proposed electricity and gas connection works in Work Nos. 2A and 3A of the draft DCO to ensure adequate provision has been made and will discuss any concerns will the applicant and update the Examining Authority.
As a responsible statutory undertaker, National Grid's primary concern is to meet its statutory obligations and ensure that any development does not impact in any adverse way upon those statutory obligations. National Grid reserves the right to make further representations as part of the examination process but in the meantime will negotiate with the Promoter with a view to reaching a satisfactory agreement.	Noted – no response required.



13.0 RESPONSE TO NATURAL ENGLAND RR

13.1.1 The RR provided by Natural England and the Applicant's response is provided in Table 13.1 below.

Table 13.4: Natural England's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
Thank you for your consultation on the above dated 28 July 2021. Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development. Relevant Representation PART I: Summary of Natural England's advice. Further information required to determine the potential of the project to impact on SAC habitats as well as the passage/wintering bird assemblage of the Humber Estuary SPA and Ramsar site.	All noted – responses are provided below.
PART I: SUMMARY OF NATURAL ENGLAND'S ADVICE 1.1. Natural England's advice in these relevant representations is based on information submitted by DWD (on behalf of Keadby Generation Limited) in support of its application for a Development Consent Order ('DCO') in relation to Keadby 3 Low Carbon Gas Power Station.	All noted – responses are provided below. The Applicant confirms that following submission of the DCO Application, further engagement has been undertaken with Natural England, following receipt of the Relevant Representation which included a meeting on 17 September 2021 and further email discussion, including review of the updated HRA Appropriate Assessment submitted at Deadline 1.
1.2. Natural England has been working closely with DWD to provide advice and guidance since 06/11/2020. Natural England has also been working with AECOM to provide coordinated advice. A meeting is to be held between Natural England and the developer to produce a Statement of Common Ground following the submission of this Relevant Representations response.	

Text from Relevant Representation	Applicant's Responses
1.3. These relevant representations contain a summary of what Natural England considers the main nature conservation issues to be in relation to the DCO application, and indicate the principal submissions that it wishes to make at this point. Natural England will develop these points further as appropriate during the examination process. It may have further or additional points to make, particularly if further information about the project becomes available.	
1.4. Part I of these representations provides an overview of the issues and a summary of Natural England's advice. Section 2 identifies the natural features relevant to this application.	
1.5. Part II of these representations sets out all the significant issues which remain outstanding, and which Natural England advises should be addressed by DWD and the Examining Authority as part of the examination process in order to ensure that the project can properly be consented. These are primarily issues on which further information would be required in order to allow the Examining Authority properly to undertake its task or where further work is required to determine the effects of the project and to flesh out mitigation proposals provide a sufficient degree of confidence as to their efficacy.	
1.6. Part III summarises Natural England's overall view of the application and the main issues which it considers need to be addressed by the Secretary of State.	

Text from Relevant Representation	Applicant's Responses
1.7. Natural England will continue discussions with DWD to seek to resolve these concerns and agree outstanding matters in a statement of common ground. Failing satisfactory agreement, Natural England advises that the matters set out in sections 4 to 7 will require consideration by the Examining Authority as part of the examination process.	
1.8. The Examining Authority may wish to ensure that the matters set out in these relevant representations are addressed as part of the Examining Authority's first set of questions to ensure the provision of information early in the examination process.	
2. The natural features potentially affected by this application	The Applicant acknowledges the response from Natural
2.1. The designated sites relevant to this application are;	England including the designated sites, species and impact
2.1.1. Humber Estuary Special Protection Area (SPA)	pathways that are noted for consideration in the Application. Reference should be made to the Statement of Common
2.1.2. Humber Estuary Special Area of Conservation (SAC)	Ground (Document 8.3), also submitted at Deadline 1 which sets out matters agreed between the Parties following the
2.1.3. Humber Estuary Ramsar site	updates made to the HRA Appropriate Assessment (also submitted at Deadline 1). This confirms that impact pathways
2.1.4. Humber Estuary Site of Special Scientific Interest (SSSI)	that could not be screened out following initial assessment of
2.1.5. Thorne Moor SAC	likely significant effects (LSE) included direct habitat disturbance during construction, visual and noise disturbance
2.1.6. Hatfield Moor SAC	during construction and emissions to the atmosphere during operation of the Proposed Development
2.1.7. Thorne and Hatfield Moors SPA	operation of the Froposed Development

Text from Relevant Representation	Applicant's Responses
2.1.8. Thorne, Crowle and Goole Moors SSSI	and so were carried forward for the second stage of
2.1.9. Hatfield Moors SSSI	assessment, which is Appropriate Assessment. The Appropriate Assessment concluded no adverse
2.2. The following nationally protected species may be affected	effect on the integrity of the European Sites.
by the proposed project:	Potential in-combination effects of the Proposed Development with other plans and projects were also assessed and the
2.2.1. European badger	same conclusion was reached i.e. no adverse effect on the
2.2.2. European water vole	integrity of the European Sites.
2.3. The main issues raised by this application are that further information is required to assess the following impact pathways:	
Disruption of river and sea lamprey migration routes due to cofferdam installation.	
2. Loss or modification of designated SAC habitat.	
3. Air quality impacts to designated sites during operation of the proposed development.	
4. Noise and vibratory disturbance to SPA/Ramsar birds during construction and operation.	
5. Water quality impacts to Humber Estary SAC/SPA due to the cooling water discharge.	



Text from Relevant Representation	Applicant's Responses
Part II: NATURAL ENGLAND'S RELEVANT REPRESENTATIONS IN RESPECT OF KEADBY 3 LOW CARBON GAS POWER STATION 3.	The Applicant acknowledges the response from Natural England. Reference should be made to the Statement of Common Ground (Document 8.3), also submitted at Deadline
Planning Inspectorate Reference: EN010114	1, which sets out matters agreed between the Parties.
3.1. Natural England's headline points are that on the basis of the information submitted:	
3.1.1. Natural England is satisfied that necessary measures are to be implemented to ensure that there is not a significant risk to river and sea lamprey associated with the Humber Estuary SAC during the water abstraction process. Natural England welcomes the commitment to appropriate screening at the water intake and to operate below the maximum escape velocity for all life stages of river and sea lamprey species to avoid impingement or entrainments of lamprey. The use of eel screening with a 2mm mesh size will be sufficient to prevent entrapment of lamprey.	
3.1.2. Natural England is satisfied that the proposed development will not increase the risk of invasive non-native species (INNS) impacts within the boundary of the Humber Estuary SPA/SAC.	
3.1.3. Natural England is satisfied with the measures outlined to prevent water pollution impacts to the Humber Estuary SAC/SPA during the construction stage of the proposed development. However we would advise that the measures to reduce the impact to waterbodies given in sections 5.2.58 to 5.2.63 would	

Text from Relevant Representation	Applicant's Responses
constitute mitigation, so the Habitats Regulations Assessment (HRA) should proceed to Appropriate Assessment (AA) and advise no adverse effect, rather than no Likely Significant Effect (LSE). We also would wish to see the measures secured within the DCO.	
3.1.4. Natural England is satisfied that there are not likely to be impacts to nationally protected bat species due to the proposed development. Appendix 11C, Table 4 confirms that the construction, operation and decommissioning of the Proposed Development will not affect trees with features that may be utilised by roosting bats (including trees with bat boxes). Further survey to confirm the presence/ absence of roosts is not required.	
3.2. Natural England is not satisfied that it can be excluded beyond reasonable scientific doubt that the project would not have an adverse effect on the integrity of the Humber Estuary SAC and the Humber Estuary SPA and Ramsar; nor that the criteria for derogating from the Habitats Regulations are fulfilled; 3.3. Natural England is not satisfied that the project is not likely to damage features of interest of Humber Estuary SSSI. 3.4. Natural England advises that, if approved, the project must be subject to all necessary and appropriate requirements which ensure that unacceptable environmental impacts either do not occur or are sufficiently mitigated.	The Applicant acknowledges the response from Natural England. Reference should be made to the Statement of Common Ground (Document 8.3), also submitted at Deadline 1 which sets out matters agreed between the Parties. In addition, The Applicant has provided updates to the HRA Appropriate Assessment to provide evidence to Natural England on the criteria for derogating from the Habitats Regulations and to show that the Proposed Development is not likely to damage features of interest of Humber Estuary SSSI.

Text from Relevant Representation	Applicant's Responses
3.5. Natural England's advice is that there are a number of matters which have not been resolved satisfactorily as part of the pre-application process that must be addressed by DWD and the Examining Authority as part of the examination and consenting process before development consent can be granted. Some of these matters, set out at paragraphs 3.5.1. to 3.5.8., are important enough to mean that if they are not satisfactorily addressed it would not be lawful to permit the project due to its impacts on the SAC, SPA, Ramsar and SSSI interests. However, Natural England's advice is that all these matters are capable of being overcome. The specific concerns in relation to each are outlined below.	The Applicant acknowledges the response from Natural England and notes that the HRA Appropriate Assessment has been updated to take account of the use of soft-start procedures as mitigation.
River and Sea Lamprey 3.5.1. Section 5.2.26 of the HRA states that lamprey are low hearing sensitivity fish and therefore unlikely to be significantly effected by noise and vibration disturbance. However noise and vibrations could impact the lamprey migration as they will take shelter and stop until the noise passes. We support the suggested use of soft-start to give them the opportunity to move through before piling begins. However we advise this measure would constitute mitigation and should also be taken to AA. The use of soft-start procedure should also be secured within the DCO.	
3.5.2. Section 5.2.35 of the HRA states it is assumed that MMO regulatory regimes will be applied to prevent risk to trapped lamprey during dewatering of cofferdams, to ensure compliance with a DML. However this has not yet been secured. The Habitat	The Applicant acknowledges the response from Natural England.

The Applicant acknowledges the response from Natural

England. Reference should be made to the updated HRA

Appropriate Assessment which presents the assessment of

A collaboration between SSE Thermal and Equino

Text from Relevant Representation Applicant's Responses As confirmed in the updated HRA Appropriate Assessment, if a Regulations require certainty to ensure that any potential significant effects are taken into account before determination of cofferdam is required on the River Trent, the cofferdam would any application. The HRA would need to be certain that these need to be installed in a manner that delivers legislative measures would be undertaken and be effective for lamprey compliance with the deemed marine licence (DML) under Part 4 of the Marine and Coastal Access Act 2009, which is specifically. It would be acceptable to refer to an MMO HRA. Otherwise the mitigation methods will have to be assessed proposed to be secured as part of the Draft within the AA stage of the HRA to ensure compliance with the DCO (APP-005). Consequently, early regard has been given to specification and commitment to appropriate Habitats Regulations. We would also like to see these measures secured within the DCO. Furthermore, we note in ES chapter 5 cofferdam construction working methods to achieve this. In Construction Programme and Management, section 5.4.36, it is relation to ecology these are set out in the Framework CEMP stated that "No seasonal restrictions are proposed in relation to (APP-160) and within the Landscape and Biodiversity installation or removal of the cofferdam within the Stainforth and Management and Enhancement Plan (APP-039) - final versions of these documents are secured by Requirements 17 Keadby Canal given that the only migratory fish species likely to use the canal is European eel." Our understanding is that this is and 6 of the draft DCO (APP-005). based on an assumption that the lock gate means lamprey are unlikely to use the canal. While we would not anticipate the need The Applicant confirms that the precautionary mitigation for for seasonal restrictions if the canal abstraction option is lamprey has been committed to in the updated HRA chosen, we do advise that this aspect of the proposals should Appropriate Assessment (para 6.4.7) submitted at Deadline 1 be taken to the AA stage of the HRA, and further information will and also in the Framework CEMP which is secured by be required to ensure no adverse effect due to entrapment of Requirement 17 of the draft DCO (APP-005). lamprey. This could consist of; a. Demonstration that lamprey do not use the canal through surveys; b. Provision of precautionary mitigation, as will be implemented for the river abstraction option. Habitat Loss / Modification

December 2021 Page 52

3.5.3. Section 5.2.4 of the HRA lists transitional vegetation found

along the banks of the River Trent. We advise that reedbed

habitat is considered to be saltmarsh on the Humber Estuary

Text from Relevant Representation

SAC. Therefore assessment of impacts to saltmarsh habitat at the location of the proposed construction works may be required as part of the assessment if reedbed is present. 3.5.4. Section 5.2.8 of the HRA advises a 'de minimus' loss of habitat due to the cofferdam installation and advises no LSE for this pathway. However Natural England advise that any loss of designated habitat within a designated site should be taken to the AA stage of the HRA. Due to the temporary nature of the loss we agree the HRA will be able to state no adverse effect at the AA stage. However, we would also advise a requirement should be secured within the DCO stating that if the habitat has not reestablished to baseline conditions within 5 years the developer would be responsible for reinstatement.

Applicant's Responses

impacts in relation to saltmarsh where this is a qualifying feature of the Humber Estuary Special Area of Conservation (SAC) and Ramsar site. Agreement on this matter between the Parties is outlined in the Statement of Common Ground (Document 8.3), also submitted at Deadline 1.

On the basis of there being no adverse effect on relevant habitats demonstrated through the updated HRA Appropriate Assessment, the Applicant does not believe it is necessary to secure reinstatement of such habitat by Requirement within the draft DCO.

Air Quality 3.5.5. Section 5.3.14 of the HRA states that "an initial atmospheric impact assessment was undertaken to determine the potential impact of the NOx and ammonia emissions from the operational power station...Through this process, it was determined that abatement of NOx and ammonia emissions would be necessary. For the purposes of this HRA, such abatement measures constitute mitigation for specific impacts on European Sites and consequently cannot be considered until HRA stage 2 i.e. Appropriate Assessment." It is assumed from this statement that NOx and ammonia exceed 1% of the environmental thresholds for these pollutants and there is no mention of Nitrogen or acid deposition. It is also not clear which European sites are being referred to. For the avoidance of doubt, the HRA should clearly state the reasons that an

The Applicant acknowledges the response from Natural England and confirms that the updated HRA Appropriate Assessment submitted at Deadline 1 has clarified the design measures within the Proposed Development that are implicit to meet regulatory requirements and those that are proposed mitigation (abatement) measures for ammonia (i.e. acid wash). The latter are embedded mitigation in order to manage atmospheric pollutants so that they remain below the critical levels/ loads set for all of all the relevant European Sites.

The Applicant acknowledges that diffusion tube monitoring was undertaken and that the data has been taken into consideration

Text from Relevant Representation	Applicant's Responses
appropriate assessment is required. Natural England's understanding is that the results of the detailed modelling presented in Appendix 8B are the results with the abatement measures included. However there doesn't appear to be a version of the assessment without the abatement to evidence the requirement for mitigation. It would be beneficial for the HRA to clear set out the mitigation measures that are required to determine no adverse effects, and state how these are to be secured by the DCO. Furthermore, Natural England has received an ambient NOx, NO2 and NH3 monitoring report (dated 07 May 2021) that was carried out to satisfy the conditions of the Keadby 2 power station. We note that active diffusion tube monitoring was undertaken for a year, however, it does not appear that the results of this work have been incorporated into the air quality assessment. One location at Keadby 1 outfall pumphouse on the Humber Estuary recorded an average of 3.70 ?g/m3, which is in exceedance of the critical level. We recommend that the results of this monitoring report are included within the air quality assessment.	in the updated HRA Appropriate Assessment submitted at Deadline 1.
Bird Disturbance 3.5.6. Sections 5.2.14 to 5.2.21 of the HRA include an assessment of the potential for noise and visual disturbance impacts to designated bird species associated with the Humber Estuary SPA/Ramsar. Natural England would advise use of 50dB as a precautionary level at the LSE stage of the assessment. The noise modelling assessment uses the noise disturbance thresholds as described in the TIDE/ Institute of Estuarine and Coastal Studies (IECS) toolkit. Natural England	The Applicant acknowledges the response from Natural England and the concerns raised with the IECS toolkit. As noted in the Statement of Common Ground (Document 8.3), also submitted at Deadline 1. The Applicant has agreed to sensitivity test our findings using the alternative thresholds proposed by Natural England and the findings are incorporated

Text from Relevant Representation

does not endorse the evidence provided in the IECS toolkit. We were involved in some previous work IECS did through the Humber INCA (now Humber Nature Partnership) several years ago. This involved a literature review which reported that there was little evidence available on the impacts of construction disturbance to birds. It is therefore unclear to Natural England how it is then possible to come up with very specific noise and distance 'triggers' for individual species of birds in this toolkit. It is also worth noting that the Humber Estuary is an SPA and therefore no construction works have been carried out that would cause significant disturbance to SPA birds so any evidence taken from this site would be limited. Monitoring work associated with construction disturbance undertaken on this site has either been carried out outside the sensitive season: when there are low numbers of birds present; or when the competent authority has already determined that the proposed works will not adversely affect the integrity of the Humber Estuary designated site. Instead, Natural England considers that a more suitable approach is to determine whether the predicted noise levels will be significantly greater than the background noise levels.

Section 5.2.23 also advises that the baseline noise and visual disturbance at the development site would be likely to have resulted in habituation by the birds. We advise it would not meet the requirements of the HRA to rely on this assumption. As stated above, a better approach would be to determine whether predicted noise levels will be greater than this baseline. Section

Applicant's Responses

in the updated HRA Appropriate Assessment (also submitted at Deadline 1).

The updated HRA Appropriate Assessment includes noise contour plots (Figures 3 and 4) for the worst-case noise levels that could result from use of impact piling, noting that vibratory piling (vibro-piling) will be the main construction method used over the up to 25 day construction period, but it is often necessary to drive the final stages of a pile with a hammer (impact piling). The updated assessment therefore demonstrates how these worst-case (temporary and short-duration) noise levels would attenuate across the Humber Estuary Ramsar using the approach agreed.

The Parties are agreed that this matter has been resolved.

The Applicant confirms that the HRA Appropriate Assessment has been updated to consider disturbance effects on qualifying bird species during cofferdam installation. Avoidance of the wintering period in relation to bird disturbance is secured by Detailed Design Requirement (No. 5, 4d) of the draft DCO (APP-005) which secures agreement of 'the method and timing of installation and removal of any cofferdams at the intake and outfall points, their phasing, and the extent to which each extends into the waterway; and furthermore, by the DML included in the draft DCO ('During Construction, Operation

Text from Relevant Representation	Applicant's Responses
5.2.21 of the HRA advises that the cofferdam installation and associated piling works will be likely to avoid the wintering period. This would constitute mitigation and should be considered in the AA stage of the HRA, however Natural England support this measure and advise that we would like to see this secured within the DCO.	and Maintenance' condition (No. 19 DML) which secures the avoidance of piling works for the cofferdam in the River Trent between the period 01 September and 31 November. The wording will be updated to confirm avoidance of impact piling for cofferdam installation between 01 September and 31 March.
3.5.7. Section 5.2.66 considers the impact of the development on designated bird foraging resource. As the HRA states there is potential for birds to forage within the vicinity of the development site we advise that further evidence, such as consideration of available habitat and use of available bird data, is required to determine whether there is likely to be an adverse effect on the features of Humber Estuary SPA.	The Applicant acknowledges the response from Natural England and confirms that confirms that the HRA Appropriate Assessmenthas been updated to consider effects on bird foraging resource
Water Quality 3.5.8. Section 5.3.23 of the HRA advises that during operation cooling water will be discharged at a rate compliant with the Environmental Permit to be issued by the Environment Agency. However we would advise that if this permit has not yet been issued then this statement does not meet HRA requirements. When there's more than one competent authority carrying out an HRA for the same proposal, they should work together on the assessment. Therefore, the applicant should seek to make the argument (backed by appropriate levels of information) that it can be determined at this stage in the process. This should be secured through the DCO.	The Applicant acknowledges the response from Natural England. As noted in the Statement of Common Ground (Document 8.3), also submitted at Deadline 1, The Applicant advises that the Keadby 3 environmental permit application has been submitted to the Environment Agency and is being processed through the Duly Made checks. The HRA Appropriate Assessment has also been updated to provide further context in relation to the future water discharge with Keadby 2 Power Station, which will comprise a reduction in discharge rate, noting that Keadby 1 Power Station will not operate concurrently with the Proposed Development.

Text from Relevant Representation

Protected Species 3.5.9. Chapter 11 of the ES states that the need for a water vole licence would need to be confirmed prior to infilling of the drain – see para 11.5.15. We wish to reiterate our advice that a licence is likely to be required and should be secured from Natural England prior to commencement of development. More information can be found in the following paragraphs. Class licence CL31: intentional disturbance of water voles and damage or destruction of water vole burrows by means of displacement - to facilitate development activities may apply for displacement activities only and only between the period 15 February to 15 April, inclusive. An Individual Licence would be required for works other than displacement and/or works in Autumn from 15th September to end of October.

3.5.10. ES Chapter 11, paragraph 5.2.2 states that if the satellite badger sett is subject to disturbance from the construction activity then the badgers can use alternative setts. However we wish to reiterate than works within 30m of any sett should only be carried out between the months of July and November. A licence may also still be required for the works. More information can be found in the following paragraphs. CL35 Class Licence Badgers: licence to interfere with setts (CL35). This licence permits persons registered under this licence to interfere with badger setts, including: monitoring of sett use by badgers, the exclusion of badgers from their setts and destruction of setts for the purposes of development (as defined in section 55(1) of the Town and Country Planning Act 1990) and preventing serious damage. It also permits the disturbance of badgers occupying a

Applicant's Responses

All noted – The Applicant confirms that it intends to ensure that final mitigation is informed and finalised based on an up-to-date pre-construction baseline given that existing species may be lost or indeed, new protected species may colonise in the intervening period between an application being submitted and construction commencing. This is the reason why pre-commencement surveys are an important part of good practice. Such surveys are secured in the draft DCO (APP-005) under Requirement 6, Landscaping and biodiversity protection management and enhancement. The potential need for a water vole licence is noted in the Schedule of other Consents and Licences (APP-033) submitted with the Application.

All noted. The Applicant notes that the wording of Appendix 11D (APP-079) (para 5.3.2) confirms that an updated badger survey will be completed in advance of construction works to re-confirm the status and distribution of badgers and that it is the Applicant's intention to review and confirm both the mitigation and licensing requirements on the basis of this updated badger survey. If a badger development licence is required, this would be obtained from Natural England to permit works likely to result in offences under the relevant legislation. The potential need for a badger development licence is noted in the Schedule of other Consents and Licences (APP-033) submitted with the Application.



Text from Relevant Representation	Applicant's Responses
badger sett for the purpose of development. Registered Users are permitted to monitor sett use at any time of the year, but exclusion of badgers and closure of setts must only be undertaken between 1 July and 30 November (inclusive). At other times of the year, or if not registered for the Class Licence, an Individual Licence (A24) may be required. Net Gain and Enhancement	
Net Gain and Enhancement 3.6. Biodiversity Net Gain (BNG) is an approach to development that leaves the natural environment in a measurably better state than it was before. The Environment Bill will mandate BNG for developments which fall under the Town and Country Planning Act (TCPA) and following a recent amendment to The Bill responding to the Dasgupta Review, for Nationally Significant Infrastructure Projects, such as Keadby 3. BNG is expected to become mandatory for TCPA developments in the second half of 2023. Natural England welcomes the commitment to BNG and the use of Biodiversity Metric 2.0 to calculate the value in terms of 'biodiversity units' before and after the Proposed Development to ensure net gains are measurable. Please be aware Biodiversity Metric 2.0 was recently updated with the Biodiversity Metric 3.0 which will be the metric that all developments will legally need to use under the Environment Bill. Natural England notes that proposed development site encompasses an area of approximately 69.4 ha, however, only 17.9 ha has been assessed using the metric to establish the habitat baseline. The expected approach for establishing the habitat baseline is to assess all habitats within	The Applicant acknowledges the response from Natural England and notes that the calculation presented in the Landscaping and Biodiversity Management and Enhancement Plan (APP-039) that accompanies the Application was based on areas of the Proposed Development Site that had the potential to be directly affected by works and that the red line also includes several large areas that would remain undisturbed. The Applicant also notes that at the time of the assessment (June 2021), biodiversity net gain (BNG) was not mandated for DCO applications. Notwithstanding, the Applicant has agreed with Natural England that it will update the assessment and will include the whole Order Limits area or set out the rationale for why areas are not included in the updated assessment using Metric 3.0. The revised assessment will be issued to Natural England and other stakeholders including North Lincolnshire Council in draft for comment prior in due course.

Text from Relevant Representation	Applicant's Responses
the 'red line' of a development. The habitat re-instatement and	
enhancement detailed in the LBMEP confirm that a gain in	
habitat units of 10.6% and a net gain of hedgerow units of	
35.9% is achievable, which aligns with requirements of the	
Environment Bill that developments must achieve a minimum	
10% BNG. Natural England welcomes that the proposed	
biodiversity enhancement measures have been designed to be	
delivered onsite within the existing land ownership of the	
applicant, focus on enhancing existing habitats within the vicinity	
of the proposed development and that the proposed locations	
for flower-rich native grassland includes areas directly	
connected to two habitat corridors associated with Local Wildlife	
Sites, namely Stainforth and Keadby Canal Corridor LWS and	
Hatfield Waste Drain LWS. Natural England notes that although	
the general approach to habitat compensation is like for like, it	
has not been possible in some circumstances, most notably in	
respect of 0.25 ha of Urban - Open Mosaic Habitat on	
Previously Developed Land (OMH). OMH is a UK BAP Priority Habitat and as such the Biodiversity Metric 2.0 indicates that the	
same habitat is required to address the loss of this habitat. The	
LBMEP proposes that the shortfall in OMH will be addressed	
through the enhancement of improved grassland to native	
flower-rich grassland habitat. The local planning authority should	
be consulted on this matter to ensure they are satisfied that the	
proposed enhancement is appropriate.	Comments regarding relevant standards and guidance made
proposed emigricant to appropriate.	by Natural England are noted.
Natural England encourages the incorporation of the	by Natural England are noted.
CIRIA/CIEEM/IEMA Biodiversity Net Gain Good practice	

Text from Relevant Representation	Applicant's Responses
principles for development in any future iteration of this, and any future development projects. CIEEM have also published BNG Report and Audit Templates which provides a framework for writing reports for projects that are aiming to achieve BNG. British Standard BS 8683 'A process for designing and implementing biodiversity net gain' also provides further useful guidance for developers and is intended to be applicable for large or small development projects.	
PART III: OUTSTANDING MATTERS REQUIRING ATTENTION 4. Further evidence or assessment work required 4.1. As advised in paragraph 3.5.2 above, if the canal water abstraction option is chosen further information should be provided to ensure no adverse effect to migrating lamprey. Further information could be provided in the form of surveys to demonstrate that lamprey do not use the canal. However we would also accept the incorporation of precautionary mitigation in the form of eel screening.	Noted and addressed in preceding comments by the Applicant.
4.2. The air quality report in Appendix 8B shows the results of the detailed model with abatement measures already built in. We advise that results without the abatement measures should also be provided to demonstrate the requirement for the mitigation. Results on the nitrogen and acid deposition output from the development should also be provided. We also note that the on going monitoring for the Keadby 2 power station has not been incorporated into the model. This should be included to	Noted and addressed in preceding comments by the Applicant.



Text from Relevant Representation	Applicant's Responses
demonstrate the potential in combination impacts of the two developments.	
4.3. The potential for birds to use the development site as forage habitat should be evidenced through consideration of available habitat and use of available bird data.	Noted and addressed in preceding comments by the Applicant.
5. Matters that must be secured by requirements in the DCO 5.1. The DCO should secure the measures to reduce water pollution impacts during construction of the development. 5.2. The DCO should secure the use of soft-start methods for piling activity to allow migrating lamprey species associated with the Humber Estuary SAC to pass the development site before piling begins. 5.3. The DCO should secure use of the abatement measures to reduce the NOx and ammonia emissions from the development. 5.4. The DCO should secure avoidance of the wintering bird period for the cofferdam installation and associated piling works, to prevent noise and visual disturbance to the designated features of Humber Estuary SPA. 5.5. The DCO should secure a measure stating that if the River Water Abstraction option is chosen then the developer should ensure any mudflat habitat lost due to the installation of the cofferdam is re-established within a 5 year period. If it is not then the developer would be responsible for reinstatement.	The Applicant acknowledges the response from Natural England. Reference should be made to the agreed Statement of Common Ground (Document 8.3), also submitted at Deadline 1 which sets out the proposed changes to the draft DCO (APP-005) and other matters agreed between the Parties.
6. Comments on the Draft DCO 6.1. Natural England notes that requirement 6 requires submission and approval of a Landscaping and Biodiversity Protection Management and	All noted – no response required.

Text from Relevant Representation	Applicant's Responses
Enhancement plan, and considers this a necessary requirement. 6.2. Natural England notes that requirement 7 requires submission and approval of an external lighting strategy for both the construction and operation phases, and considers this a necessary requirement. 6.3. Natural England notes that requirement 10 requires submission and approval of a CEMP, and considers this a necessary requirement. 6.4. Natural England notes that requirement 11 requires submission and approval of the cofferdam installation technique and piling methodology, and considers this a necessary requirement. 6.5. Natural England notes that requirement 31 requires submission and approval of a land restoration scheme for any land used temporarily during construction, and considers this a necessary requirement.	



14.0 RESPONSE TO NETWORK RAIL RR

14.1.1 The RR provided by Eversheds Sutherland International LLP on behalf of Network Rail and the Applicant's response is provided in Table 12.1 below.

Table 14.5: Network Rail's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
We are instructed by Network Rail Infrastructure Limited ("Network Rail") in relation to the development consent application made by Keadby Generation Limited ("the Promoter") for a combined cycle gas turbine (CCGT) power station, comprising a CCGT unit with a capacity of up to 910 megawatts electrical output (gross), carbon capture and compression plant, electrical, gas, and cooling water connections, and associated development ("the DCO Scheme").	All noted – no response required.
This section 56 Representation is made on behalf of Network Rail. Network Rail is a statutory undertaker responsible for maintaining and operating the country's railway infrastructure and associated estate. Network Rail owns and operates Great Britain's railway network and has statutory and regulatory obligations in respect of it. Network Rail aims to protect and enhance the railway infrastructure and therefore any proposed development on, over or under the railway network or which is adjacent to and interfaces with the railway network or potentially affects Network Rail's land interest will be carefully considered.	All noted – no response required.
The proposed DCO Scheme includes powers for the Promoter to acquire compulsorily new rights over plots 28 and 29 as shown on the Land Plans and set out in the Book of Reference. Network Rail is the freehold owner of these plots.	All noted – no response required.

Text from Relevant Representation	Applicant's Responses
The rights to be acquired over these plots are to facilitate the following works:	All noted – no response required.
 Work No. 8A: access route comprising the maintenance and improvement of an existing private track running between 	
 Work Nos. 1 and 2 including private bridge and the existing junction with the A18 nearby to the west of Pilfrey Farm, comprising surfacing works and signage, and creation of on and off-slips; and 	
 Work No. 9B: the maintenance and improvement of the existing private tracks connecting the existing junctions with the A18 to the west of Pilfrey Farm with 	
Work No. 9A via two existing private bridge crossings of the Hatfield Waste Drain, including the replacement, widening, improvement and maintenance of the westernmost existing private bridge crossing, surfacing, drainage and strengthening works, barriers and enclosures.	
Network Rail note that these proposed works include:	
 the routing of construction traffic (including HGVs and abnormal loads) over the railway; 	
the use of a compound to the south of the railway; and	

Text from Relevant Representation	Applicant's Responses
the construction of the power station to the north of the railway infrastructure in close proximity.	
It is noted that there is an existing agreement between the Promoter and Network Rail in relation to the proposed haulage route which imposes certain limitations which would not be suitable for the proposed DCO Scheme. Further there may be existing rights benefiting Network Rail over or under Order land as a result of previous railway ownership of some of this land and it is essential that these rights are retained by Network Rail. Network Rail are assessing the position in this regard.	The use of North Pilfrey Bridge is unlikely to be materially different to the existing uses authorised by an existing agreement. The Applicant is working with NR to widen the definition of land benefitting from the easement in connection with future use by SSE companies in relation to Keadby Power Stations, and hope we will be able to reach voluntary agreement to the variation on reasonable terms that are no worse than that available pursuant to the Compensation Code. In this regard, Heads of Terms have been provided to NR. Until such time that terms are agreed, acquisition of the right of access and the right to lay a communication cable across this bridge will be included in our Book of Reference (APP-007).
Network Rail are in the process of assessing the full impact of the works and powers sought in the proposed DCO Scheme on its undertaking, include indirect impacts. This includes any impact on the Keadby Canal Junction Level Crossing and the Chapel Lane Level Crossing.	Other than the airspace within plots 28 and 29, Network Rail does not have any identified rights or land ownership within any part of the DCO "red line" boundary. As such, only plots 28 and 29 are included within the Book of Reference. The Chapel Lane level crossing will not be utilised by Keadby 3 construction or operational traffic, since it is located well away from the designated HGV route and no part of the Proposed Development lies on the strip of land that is accessed by the level crossing. The nearest part of the Proposed Development (the canal water supply connection, Work No. 4A) would be constructed at least 25 metres to the north of the level crossing

Text from Relevant Representation	Applicant's Responses
	and on the other side of the South Soak Drain, and access during construction of this work would be via land to the north that is owned by the Applicant. No construction traffic will utilise the level crossing.
	The proposed generating station (Work No. 1) is to be sited some 200m north of the railway, beyond the overhead lines. No new overhead lines or towers near to the railway are proposed.
Due to the proposed DCO scheme seeking to authorise work either above or adjacent to Network Rail's operational railway and works which may impede Network Rail's ability to ensure the safe, efficient and economical operation of the railway network, Network Rail requires certain standard protections for the benefit of the operational railway and to manage this interface.	Based on the design and assessment carried out, which has involved engagement with Network Rail asset engineers, and the inclusion of appropriate DCO requirements, there is no likelihood of impacts upon Network Rail's undertaking and therefore the inclusion of Network Rail's own protective provisions is unnecessary and would represent an impediment on the delivery of the Proposed Development. The use of plots
Network Rail's requirements for the protection of its operational railway and associated railway infrastructure are set out in further detail in this representation.	28 and 29 for the Proposed Development does not affect the operation of the railway.
Network Rail's Protective Provisions Network Rail notes that the Promoter has not included Protective Provisions for the protection of Network Rail in the draft DCO.	
The inclusion of Network Rail's standard form Protective Provisions in both TWAOs and DCOs is well precedented and includes, for example, protections for compulsory purchase of Network Rail's land and interests and processes for approving	

Text from Relevant Representation	Applicant's Responses
works on or affecting the railway. Network Rail requires its standard form Protective Provisions in the DCO.	
In addition to protective provisions for the benefit of Network Rail being included in the Order, Network Rail also requires the Promoter to enter into an asset protection agreement to ensure the appropriate and necessary technical, engineering and safety requirements for working on or near Network Rail's operational railway are applied to the DCO Scheme.	As demonstrated in the Environmental Statement (APP-043) and Framework CTMP (APP-161) the Proposed Development will not impact upon any Network Rail assets and as such an Asset Protection Agreement is not required. No works are to be undertaken on or near the operational railway.
It is noted that works detailed in Work Nos. 8A and 9B relate to works on or adjacent to Network Rail's existing operational railway and railway infrastructure. This work would be covered by the asset protection agreement to be entered into. Protection from Compulsory Acquisition Network Rail is also an affected landowner. There are references in the DCO Book of Reference to land for which Network Rail is the owner and occupier. See plots 28 and 29 in the DCO Book of Reference.	The required right of access is over a bridge owned and maintained by SSE. As noted above acquisition of the right of access and the right to lay a communication cable across the existing North Pilfrey Bridge will be included in our Book of Reference (APP-007) until such a time that terms are agreed. Compulsory purchase powers will only be exercised as a matter of last resort. In this regard, Heads of Terms have been provided to NR.
Whilst Network Rail does not object in principle to the DCO, Network Rail does object to the powers contained in articles 20 (statutory authority to override easements and other rights), 22 (compulsory acquisition of rights etc.), 23 (private rights), 28 (temporary use of land for carrying out the authorised development, 29 (temporary use of land for maintaining the authorised development) and 33(statutory authority to override	No other railway land or airspace is included in the Book of Reference.

Text from Relevant Representation	Applicant's Responses
easements and other rights) of the draft DCO authorising the Promoter to compulsory acquire rights in or over land, or temporarily use land, which forms part of Network Rail's operational railway land and which Network Rail relies upon for the carrying out of its statutory undertaking	
Furthermore, any temporary use of or entry upon Network Rail's operational railway can only be granted with Network Rail's consent as any such use of the railway must be in accordance with the statutory requirements imposed on Network Rail as operator of the railway network and all requirements necessary to ensure the safe operation of the railway. Any acquisition of permanent rights could only be granted with Network Rail's consent and would require an easement agreed with Network Rail. It would also need to go through Network Rail's land clearance process as required by Network Rail's Network Licence. This process includes internal consultation with various railway stakeholders.	The required right of access is over an existing well utilised bridge owned and maintained by SSE and to which no structural changes are required. As noted above acquisition of the right of access and the right to lay a communication cable across the existing North Pilfrey Bridge will be included in our Book of Reference (APP-007) until such a time that terms are agreed. Compulsory purchase powers will only be exercised as a matter of last resort. In this regard, Heads of Terms have been provided to NR. No other railway land or airspace is included in the Book of Reference.
Removal of objections If the following criteria are met, then it is anticipated that Network Rail would be in a position to withdraw the objections made above:-	The Applicant's responses to these points are outlined in the relevant rows above.
 Network Rail's standard form protective provisions are to be included in the Order for the DCO Scheme; 	

Text	rom Relevant Representation	Applicant's Responses
2.	the Promoter enters into any requested Deed of Undertaking/Framework Agreement to provide formal protection for Network Rail's statutory undertaking;	
3.	any required easement, licences and asset protection agreements or any other required agreements are entered into in respect of addressing both the acquisition of rights over and/or temporary use of Network Rail's existing operational land and carrying out of works in, over or adjacent to Network Rail's existing operational land;	
4.	Network Rail is provided clearance to enter into any of the agreements referred to above following internal consultation with affected stakeholders across the business; and	
5.	any indirect impacts on the railway and associated infrastructure such as level crossing is appropriately mitigated.	
subm Order of Ne	ork Rail reserves its position, both in representation and in issions at hearings, to seek the amendments to the draft to ensure protective provisions are inserted for the benefit twork Rail's operational infrastructure, which is affected by CO Scheme.	Noted – no response required.



15.0 RESPONSE TO NORTHERN POWERGRID (YORKSHIRE) PLC RR

15.1.1 The RR from Northern Powergrid (Yorkshire) PLC (RR-012) is as follows:

"The following representations are submitted on behalf of Northern Powergrid (Yorkshire) PLC as an electricity undertaker for the above site:

Northern Powergrid is in principle supportive of the above project but has concerns regarding the impacts the proposed scheme will have on existing assets and their pending improvement works. Areas shown within the proposed development boundary have a direct impact on Northern Powergrid's existing critical national infrastructure which serve significant numbers of customers in the local and wider area, and the rights for these assets are essential in maintaining an uninterrupted power supply to the customers we serve.

The proposed development seeks to interfere with Northern Powergrid's existing 132kV primary substation, pylons, overhead cables, underground cables and access and servicing rights. Each of these are vital for Northern Powergrid's existing operations.

The accompanying compulsory purchase order for the development seeks to acquire land and interests in order to connect to Northern Powergrid's substation. It is not necessary to acquire these interests where an agreement between the parties would be more appropriate.

Furthermore, the proposed development boundary also impacts on land which Northern Powergrid are currently in negotiation with National Grid for the replacement of the existing 132kV primary substation to provide greater capacity and resilience to the network for our customers. Although the expansion project is in early stages, the replacement and expansion of the existing substation is critical for Northern Powergrid's business and operational requirements.

In addition to the technical impacts of the proposed development, Northern Powergrid have concerns over the proposed protective provisions contained within the draft order as they do not take into account site specific issues and do not accord with Northern Powergrid's standard protective provision requirements. Northern Powergrid is keen to engage with the applicant's legal representative to agree appropriate amendments."

15.1.2 Reference should be made to the draft Statement of Common Ground between the Applicant and Northern Powergrid (Document 8.12) submitted at Deadline 1 which sets out the matters agreed between Parties. The Applicant also confirms that an application for a 132kV connection was made to Northern Powergrid on 1 December 2021.



16.0 RESPONSE TO UK HEALTH SECURITY AGENCY (FORMERLY PUBLIC HEALTH ENGLAND) RR

16.1.1 The RR provided by Public Health England and the Applicant's response is provided in Table 16.1 below

Table 16.6: Public Health England's RR and Applicant's Response

Text from Relevant Representation

We can confirm that we have assessed the submitted documentation as well as the report regarding waste arisings which was sent to us later on 29th July 2021. We wish to make the following comments and recommendations. It is noted that further modelling has been undertaken with respects to operational amine emissions. However, as the final licensor still hasn't been selected, it remains unknown which amine products specifically will be emitted. Once more is known, it would be beneficial to potentially re-model in order to get a more realistic impression of what the process contribution to the overall EAL is likely to be. It is noted that further work is planned with respect to this as well details regarding emissions from start-up and shut down, which will be appraised through the Environmental Permitting processes, at which stage PHE will be consulted.

Applicant's Responses

The Applicant acknowledges the response from UK Health Security Agency and has provided a draft Statement of Common Ground to the UK Health Security Agency which the Parties are aiming to submit at Deadline 2.

Emissions of amine products would be managed through an Environmental Permit issued by the Environment Agency. The approach to the Environmental Permit has been agreed between the Applicant and the Environment Agency and therefore the environmental permit variation for the Proposed Development has been submitted following a two-stage permitting approach, given that the final selection of licensor had not been made at the time of the application. The stage that has been applied for is an application for a Permit-in Principle. The permit variation application was submitted to the Environment Agency in July 2021 and included an appraisal of BAT and assessment of air impacts based on the current design understanding. The assessment of air impacts included an appraisal of amine emissions and formation of amine degradation products, following protocols agreed with the Environment Agency and using conservative assumptions. It has been agreed with the Environment Agency that a subsequent permit update may be required following completion of the detailed design to address any specific design measures to be applied and provide further detail on air quality impacts, including updated modelling, where

Text from Relevant Representation	Applicant's Responses
	appropriate. The UK Health Security Agency would be consulted at the relevant time by the Environment Agency on the detail of the environmental permit application in accordance with prevalent consultation guidance on environmental permits.
It is noted that further work is planned with respect to this as well details regarding emissions from start-up and shut down, which will be appraised through the Environmental Permitting processes, at which stage PHE will be consulted. Limited details are available regarding the monitoring to be undertaken to assess emissions from the site and the effectiveness of mitigation measures. In view of the number of landfills within the site boundary and adjacent, we would recommend that public health assessments include human health receptors up to 250m from these including potential ground gas risks.	The Applicant acknowledges the response from UK Health Security Agency The Applicant has assessed the risk of ground gases which may be generated within the Proposed Development Site in Table 16: Preliminary Risk Assessment (Linkage L11: Ground gas) due to the extent of Made Ground expected as a result of the former landfills and assigned a risk rating of moderate/ low (common for brownfield sites) (APP-087). The Applicant is committed to further assessing contaminative risks of ground gases through intrusive ground investigation and risk assessment at the detailed design stage. Should this further stage of evaluation, which is secured by Requirement 15 (Contaminated Land and Groundwater) of the draft DCO (APP-005) determine that there is potential for ground gas to migrate off-site and affect nearby properties, remedial measures would be taken to prevent gas escape to nearby properties and render the land fit for its intended purpose. The scheme secured by Requirement 15 would set out long-term measures with respect to any contaminants, including ground gases, remaining on the site.
Overall, inconsistencies remain in a few of areas, including the frequency of use of the AIL road, the description in timescales in the variation of HGV movements when comparing the	The Applicant acknowledges the response from UK Health Security Agency.

Text from Relevant Representation

Construction Programme Management, Traffic and Transport Assessment and Air Quality Chapters; and dust and land contamination impacts (details for which are outlined below). The assessment of cumulative impacts is welcomed. However, additional detail is recommended regarding cumulative impacts from emissions of particulate matter, including both PM10 and PM2.5 from NRMM and the use of any generators on baseline assessments and the potential impact on the AQMA. These should include other air pollution sources, for example Keadby 2.

Applicant's Responses

The Framework Construction Traffic Management Plan (CTMP) (APP-162) (para 3.1.5) explains the Applicant's assumptions in relation to frequency of use of the Additional AIL haul route from the waterborne transport offloading area into the Proposed Development Site. The exact number and size/ weight cannot be determined at this stage as this will be based on specific construction methodologies that will be confirmed during detailed design; however, it is estimated that around 35 – 40 AIL movements could be required via the Waterborne Transport Offloading Area over the period allocated for erection of main process equipment (i.e. 21 months).

The description of HGV movements is set out in Chapter 5: Construction Programme and Management (APP-048) (para 5.4.62-5.4.63), Chapter 10: Traffic and Transport (APP-053) (para 10.6.8 and Table 10.11 and Table 10.12) and these data form the basis of the assessment of construction traffic vehicle emissions presented in Chapter 8: Air Quality (APP-051) (para 8.3.31-8.3.32).

As explained in Table 8.6 of Chapter 8: Air Quality (APP-051), the limited number of AIL movements along the additional AIL haul route (an existing haul route) is not considered to lead to significant air quality effects, and these have been screened out, in line with guidance published by National Highways and the institute for Air Quality Management (IAQM) (refer to Table 10 of Appendix 8A: Air Quality – Construction Phase (ES

Text from Relevant Representation	Applicant's Responses
	Volume II - Application APP-069). The Air quality assessment has however assessed the effects of normal HGVs accessing the Proposed Development Site and uses 2031 traffic data (which takes account of predicted maximum growth on the road network) with 2025 emissions and background data, to provide a conservative assessment of potential air quality effects due to construction traffic emissions). No significant effects have been identified.
 Air Quality Construction Dust Section 8.6.2 of Chapter 8 Air Quality describes unmitigated dust impacts as medium to high risk for human health receptors, whereas Section 3.2.12 of Appendix 8A describes a low risk. This should be clarified, and mitigation measures updated 	The assessment of effects of the Proposed Development in terms of air quality and construction dust are set out in Chapter 8: Air Quality (APP-051) of ES Volume I and Appendix 8A (APP-069) of ES Volume II.
accordingly. We agree with the recommendations in the CEMP to develop a dust monitoring and recording strategy in agreement with North Lincolnshire County Council. We would recommend that this include properties north of the AIL route and south of the water connection corridor and also take into account impacts of any decommissioning of the AIL. Traffic	In relation to the clarification sought on dust impacts, the Applicant confirms that Section 8.6.2 of Chapter 8: Air Quality should read 'The assessment has considered risks from demolition/ site clearance works, earthworks, construction and trackout (of mud to the road) and, based on the potential scale of activities and the sensitivity of the receptor area, (as defined in Appendix 8A: Air Quality - Construction Phase (ES Volume II
• In view of the screening criteria (within 200m of affected roads), it would be helpful to clarify why properties Roe Farm and Vazon Bridge have not been included as receptors as these are within 100m to the south of the main road used to access the site. Further details regarding short- and long-term impacts at these receptors is recommended. Land contamination With	- Application Document Ref. 6.3)) unmitigated dust impacts are considered to be 'low risk' for human health receptors, and medium risk for ecological receptors. Therefore, mitigation measures appropriate to the scale of perceived risk would be applied as part of the CEMP.'

KEADBY 3

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Text from Relevant Representation

reference to Appendix 13 C, further clarifications, justifications and where necessary, mitigation measures, are recommended as to:

- The consideration of human health receptor being limited to 50m only; particularly when looking at potential public health impacts from ground gas.
- Construction significance has been assigned 'neutral' whereas temporary effects are described as minor adverse in Table 13.14 (Chapter 13).

Applicant's Responses

Based on the above, it is considered that there is no requirement to update mitigation measures in either Chapter 8, or Appendix 8A, as these are conservatively based on the assumption that high risk mitigation measures are to be applied.

The UK Health Security Agency has advised that the dust monitoring and recording strategy should include properties north of the abnormal load route and south of the water connection corridor. The scheme to control any emissions to air and for environmental monitoring will form part of the final CEMP, secured by Requirement 17(2b) and (2f). The Applicant confirms it will be happy to add representative receptors from these groups to the Framework CEMP at a future deadline, which the final CEMP must take account of.

The UK Health Security Agency has requested that consideration be given to impacts of any decommissioning of the abnormal load route. The Applicant confirms that Appendix C of the Framework CEMP (APP-160) comprises Haul Road Ecology Protection Measures relevant to the restoration of the Additional Abnormal Indivisible Load (AIL); and Appendix D comprises the Haul Road Construction Environmental Management Plan; which includes consideration of restoration of the AIL. The final CEMP, secured by Requirement of the

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Text from Relevant Representation	Applicant's Responses
	draft DCO (APP-005) must be prepared in accordance with the Framework CEMP (APP-160).
	The Applicant notes that the UK Health Security Agency has made further comments in relation to the choice of receptors for modelling of traffic including HGV movements during construction. It is noted that there is no requirement to consider all receptors within 200m of affected roads. Receptors such as TR5-9 are adjacent to modelled roads, and therefore the impacts at these receptors will be higher than at receptors such as Roe Farm and Vazon Bridge which are not adjacent to any modelled roads. For this reason, although not reported, the impacts due to construction traffic will be less at Roe Farm and Vazon Bridge than at other reported receptors which are closer to the modelled roads and at which no significant air quality effects have been identified.
	The UK Health Security Agency notes that construction significance has been assigned 'neutral' whereas temporary effects are described as minor adverse in Table 13.14 of Chapter 13 (APP-087). The Applicant confirms that it has applied a risk based approach in accordance with LCRM guidance (2021) which uses the principle, (as explained in paragraph 13.6.13 of Chapter 13) that where there is no predicted change between the main baseline risk and the main construction risk, the construction effect significance is assessed as a neutral effect. The majority of effects in Table 13.14 are classified as neutral to minor adverse, with three as

Text from Relevant Representation	Applicant's Responses
	neutral. Where minor adverse is defined this is due to an increase in contamination risk of 1 risk level between baseline and construction CSM in the risk matrix. For example, land that has a low contamination risk in the baseline becomes a moderate/ low risk' in construction (refer to Table 13.6). In each case the effect is classified as not significant.



17.0 RESPONSE TO CANAL AND RIVER TRUST ADDITIONAL SUBMISSION

17.1.1 The RR provided by the Canal and River Trust and the Applicant's response is provided in Table 19.1 below.

Table 17.7: Canal and River Trust RR and Applicant's Response

Table 17.7. Odnarana Niver Trast Nivana Applicant 3 Nesponse		
Text from Relevant Representation	Applicant's Responses	
The Canal & River Trust (the Trust) is the guardian of 2,000 miles of canals & historic waterways across England and Wales. The Trust is a prescribed consultee and has provided responses in relation to the section 42 Consultation in January 2021.	All noted – no response required.	
The representations made here are without prejudice to further representations which the Trust may make following a comprehensive review of the documentation published in respect of the Project.		
We intend to make submissions in relation to the proposed abstraction from the Stainforth & Keadby Canal, which we own and manage, with concern to Work No. 4A within the Draft Development Consent Order ("the Order"); and the proximity of Construction and Laydown Areas to the Canal in relation to Work No. 9A.		
We also intend to make representations in respect of the direct impact which the proposed Order will have on land within the Trust's ownership.		
Furthermore, we intend to address the specific drafting of the proposed Order which we consider will have an impact on the Trust both as navigation authority and landowner.		
Proposed abstraction from the Stainforth & Keadby Canal	The Applicant acknowledges the response from Canal & River Trust. Reference should be made to the Statement of Common	

Text from Relevant Representation

The incorporation of an additional abstraction point from the Stainforth & Keadby Canal is proposed as part of Work No. 4A.

The proposed abstraction apparatus has the potential to impact upon navigational safety, ecology and the outward character and appearance of the canal corridor. We therefore request that the exact details of abstraction, notably with regards to the angle of flow, are made a condition of any DCO so that the full impact can be assessed by the Trust, and that the Trust are included as a consultee within any such wording. We note that schedule 2 (4) requires the submission of details of Work No 4A, which could include this information, but does not include the Trust as prescribed consultee. We therefore respectfully request that the Trust is included as a prescribed consultee.

The works to install the abstraction will require the consent of and grant of a licence from the Trust, as landowner and statutory undertaker for all waterway. We note that the applicant has entered discussions with the Trust to explore this option, however, in the absence of any detailed design proposals we have yet to reach agreement on the relevant works.

Applicant's Responses

Ground (Document 8.8), also submitted at Deadline 1, which sets out matters agreed between the Parties. For completeness, these matters are also set out below.

The Applicant confirms that Requirement 5(4c) (Detailed Design) of the draft DCO (APP-005) which secures the method of construction, siting, layout, scale and external appearance of any new, upgraded or replacement intake structures within the waterway, including the screens to be installed to those structures in accordance with the Eel (England and Wales) Regulations 2009(a) and any ancillary plant, buildings, enclosures or structures shall be amended to include 'angle of flow', noting that this aspect is normally considered for discharges into the receiving water rather than abstraction from it, since the abstraction will just draw water in from the edge of the canal in the same way as applied for Keadby 2 Power Station

The Applicant confirms that Requirement 5(4) of the draft DCO (APP-005) shall be amended to secure, in relation to Work 4A, that details are to be submitted to and in consultation with the Canal and River Trust approved by the relevant planning authority.

Text from Relevant Representation

The Environmental Statement (paragraph 11.5.26) has identified the potential requirement for the installation of an eel screen. We would request that details the eel screening should be made a condition of any DCO so that its implementation as necessary can be ensured to ensure the protection of local ecology. We note the inclusion in schedule 2, 5(4)(c) of the draft DCO places an obligation for intake structures to be approved by the LPA, but would request that the consultation referred to in the proposed condition should also include the Trust.

Cofferdams are proposed to be installed temporarily to allow for construction of the new abstraction point (paragraph 11.5.10 of the Environmental Statement). Additionally, paragraphs 11.5.11 to 11.5.16 of the Environmental Statement do identify the potential environmental impacts of the cofferdam and recommended measures to limit the impact, which is welcomed. However, the Trust requests that such measures should be fully detailed and provided via condition within any DCO prior to the commencement of works upon the cofferdams. We note the inclusion within schedule 2, 5 (4)(d) and schedule 12 part 3.11 (b) of the draft DCO. We note that the draft DCO refers to the need for consultation with the Environment Marine Management Organisation in relation to schedule 2 11(b) but not the Trust. We would request that the consultation referred to in the

Applicant's Responses

Noted and the Applicant confirms it's intention to continue to engage with the Trust in this respect during detailed design, as appropriate.

Requirement 5(4c) (Detailed Design) of the draft DCO (APP-005) secures the method of construction, siting, layout, scale and external appearance of any new, upgraded or replacement intake structures within the waterway, including the screens to be installed to those structures in accordance with the Eel (England and Wales) Regulations 2009(a) and any ancillary plant, buildings, enclosures or structures. Requirement 5(4c) shall be amended to secure, in relation to Work 4A, that details are to be submitted to and in consultation with the Canal and River Trust approved by the relevant planning authority.

Requirement 5(4d) of the draft DCO (APP-005) controls the extent, timings and location of construction of any cofferdam within the Stainforth and Keadby Canal. It has been agreed via the Statement of Common Ground submitted at Deadline 1 that no changes to Schedule 13 (referred to in the Relevant Representation as Schedule 12) Part 3, 11b to include the Trust are necessary as Work 4A is a licensable activity within

Text from Relevant Representation

proposed conditions above include the Trust, since the extent, timings and location of cofferdam construction will have a direct impact upon biodiversity and navigational activities on the canal. As such, our input will be crucial in order to safeguard the waterway.

Works to install abstraction equipment next to the canal would need to be designed to safeguard navigational safety. The Trust's input is crucial to ensure that the impact of construction works on navigational safety can be fully assessed. We note that the Protective Provisions under Part 2 of the DCO include provisions to ensure that the method of installation is undertaken in accordance with the Trust's Code of Practice, which is referred to within paragraphs 18 and 31. Paragraph 22 describes a process where the developer would supply proper and sufficient plans of that work to the Trust on unspecified forms. We understand that this paragraph describes the Code of Practice process. However, this is not made explicit. To avoid confusion, we recommend that paragraph 22 is amended to explicitly refer to the Trust's Code of Practice.

Applicant's Responses

the UK Marine Area and therefore not subject to the Deemed Marine Licence. It is agreed between Parties that it is not therefore appropriate to add the Canal & River Trust into Schedule 13.

The Applicant considers that the inclusion of the Trust as a consultee for the detailed design of Work 4A (Requirement 5(4c) (Detailed Design) of the draft DCO (APP-005) will provide appropriate controls to the Trust to safeguard navigational safety in relation to installation of abstraction equipment during construction.

The Applicant has agreed with the Trust that Schedule 10 (Protective Provisions) Part 2, for the Protection of the Canal and River Trust, (Paragraph 22) drafting will be amended to refer to the 'Trust's Code of Practice' and that this will be submitted at Deadline 2.

Impact on Stability

Vibrations from construction processes on site and construction equipment could result in damage to the canal wash wall, or the structure at Keadby Lock, which is a scheduled ancient monument. The Applicant confirms that consideration has been given in Section 9.6 of Chapter 9: Nosie and Vibration (APP-052) to potential vibration effects associated with construction of the main power plant (Proposed PCC Site) and potential construction and removal of a cofferdam within the Stainforth and Keadby Canal for the canal water abstraction option (Work 4A) on the Keadby Canal wash walls and Keadby Lock, a

Text from Relevant Representation	Applicant's Responses
The latest Environmental Statement includes assessments of the impact of vibrations from works close to Keadby Lock and the Stainforth and Keadby Canal walls. which the Trust welcome. The assessment does help to confirm that the risks from vibrations in these locations should not be exceptional. However, this does not rule out the potential for exceptional unexpected detriment to the waterway caused by the construction or failure of the specified works. Works to make good any detriment is generally covered within schedule 10 paragraph 32, which may require expansion to cover all work areas that could impact the canal (discussed below).	scheduled monument (NSR11). Effects due to construction vibration on these structures as assessed in Chapter 9 (including Table 9.27) are anticipated to be negligible (not significant). Requirement 28 (control of noise and vibration – construction) of the draft DCO (APP-005) and provisions in the Framework CEMP (APP-160) provide the relevant and appropriate controls to mitigate construction related vibration effects of the Proposed Development on canal infrastructure.
Impact of Works on the Biodiversity of the Canal Whilst there has been prior disturbance to the Canalside associated for the works for Keadby Phase 11, the proposed abstraction installation will prolong the period of disturbance, which could increase the period of severance of the wildlife corridor along the canal. In line with the priorities of the draft 2020 Environment Bill and the aims of paragraph 174 (part d) of the National Planning Policy Framework, it is correct that efforts should be taken to minimise impacts on and providing or net improvements to biodiversity. We believe this would be most appropriately targeted on areas of the development where habitat loss would most likely occur. We therefore advise that habitat enhancement (as in over what is there at present) should	The assessment of the effects of the Proposed Development in relation to biodiversity and nature conservation is set out in Chapter 11: Biodiversity and Nature Conservation (APP-076) and it's accompanying Appendices 11A – 11H (APP-076 – APP-083) (excluding 11D – Badger Survey Report (APP-079) and Figures 11.1 – 11.2 (APP-121 – APP-122). The biodiversity enhancements proposed are set out in the Landscaping and Biodiversity Management and Enhancement Plan (LBMEP) (APP-039). These enhancements include the development of new flower rich native grassland habitat directly connected to (and therefore enhancing) the Stainforth and Keadby Canal Corridor Local Wildlife Site (LWS) within the Stainforth and Keadby Canal.

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Text from Relevant Representation	Applicant's Responses
be considered to mitigate for the proposed and to reinforce this part of the canal corridor. Approaches to enhance biodiversity in proximity to the abstraction installation could include new bank side vegetation using native hedgerow and tree species such as hawthorn and willow, and the use of emergent vegetation to help limit the potential for invasive weed growth in the canal during the summer months. We note that schedule 2 (para. 6) within the draft DCO includes provisions for a landscaping and biodiversity protection plan that could help ensure such mitigation can take place as necessary.	The Proposed Development has sought to minimise impact on canal-side habitat that has previously occurred during vegetation clearance for the Keadby 2 Project by siting the proposed Canal Water Abstraction (Work 4A) within the compound area that has previously been disturbed for the Keadby 2 Project. As noted in paragraph 4.10.8 of the LBMEP, (APP-039)) no re-instatement of the canal-side habitat was required under the Keadby 2 Power Station Section 36 Consent and similarly no new impacts on semi-natural habitats are anticipated for construction of Work 4A for the Proposed Development. As such, there is no habitat present that requires reinstatement as part of the Proposed Development. Notwithstanding, Applicant proposes to undertake a review of biodiversity enhancement proposals using the Defra Metric 3.0, opportunities for additional enhancement of the canal-side, will be considered, taking into consideration The Trust's request to consider potentially suitable additional habitat creation.
Schedule 2 (17) within the draft DCO includes provisions for a Construction Environmental Management Plan, which we would require to ensure that risks to the water quality of the canal through dust migration or runoff of sediment is adequately controlled. We are willing to assist the Relevant Planning Authority in assessing details submitted for works which may affect the waterway.	Noted.
Freight	The assessment of navigational risks is set out in Appendix 12C: Navigational Risk Assessment (APP-086) of ES Volume

Text from Relevant Representation

The proximity of the proposed offloading area to the access point for the Stainforth & Keadby canal at Keadby Lock could result in an obstruction to the entrance point of the canal should any oversized vessels be used, which has been observed when larger vessels have used the area in the past. We appreciate that section 10 of the Environment Statement confirms that the deemed Marine Licence (DML) would require consultation with the Trust. However, due to the unscheduled delays that could occur with regards to boat passage, there is a risk that unplanned obstructions to Keadby Lock could occur.

The Trust would welcome the opportunity to discuss the potential for mitigation to limit the potential of any unscheduled obstruction to Keadby Lock. This could involve alterations to the mooring, so that ships move away from the lock when moored up, but not offloading. It is recommended that improvements should be made to the notification system operated by the developers so that more timely accurate information and regular updates are received by the Trust and interested boaters could also assist in managing any obstruction to boat passage.

Applicant's Responses

II. The Applicant notes that the Trust is the statutory navigation authority for the Stainforth and Keadby Canal and operates Keadby Lock which controls passage onto the River Trent.

The Applicant acknowledges comments made by the Trust on the need for improvements to the abnormal loads notification system that was previously used for the Keadby 2 project, in order to provide more timely and accurate information and regular updates to avoid obstructions to boat passage for the delivery of abnormal loads to the Proposed Development. The Parties have agreed to build upon lessons-learned from Keadby 2 Power Station abnormal load deliveries and this is acknowledged in the Application (Table 8 of Appendix 12C: Navigation Risk Assessment) (APP-086) and the proposals by the Applicant to request Notices to Mariners (Notices and Stoppages) through the Trust will be used to provide mariners with forewarning of closures. In addition, it is confirmed that notification of the schedule of AIL movements will be provided by the Applicant (rather than the contractor); this will help to provide all mariners with information on any planned or required closures.

The Applicant notes that the Trust wishes to explore 'the potential for mitigation to limit the potential of any unscheduled obstruction to Keadby Lock. This could include alterations to the mooring so that ships move away from the Lock when moored up, but not offloading'. The Applicant notes that

Text from Relevant Representation	Applicant's Responses
	mooring of vessels, other than for unloading, is not proposed and that they have not sought any rights for doing so.
Proposed compulsory acquisition of the Trust's property Compulsory purchase is intended as a last resort to secure the assembly of all the land needed for the implementation of projects and should only be made where there is a compelling case in the public interest. We understand that the confirming authority will expect the acquiring authority to demonstrate that they have taken reasonable steps to acquire all of the land and rights included in the Order by agreement as opposed to Compulsory purchase. We refer to the Book of Reference and note that the Trust is listed as a Category 1 owner in respect of plots 27; 37; 38; 39; 75; 80; 80a; and 81. The Land Plans clarify that the Trust's freehold interest in part of land next to the Stainforth & Keadby Canal is intended to be compulsorily acquired and that new rights are also intended to be compulsorily acquired. The Trust is concerned that extreme measures of permanent appropriation are being sought, given that the Applicants have yet to engage with the Trust in relation to acquisition of land on a voluntary basis (whereby more appropriate, proportionate, and temporary rights may be secured). As such the Applicant cannot demonstrate that compulsory purchase powers are being sought as a matter of last resort and their approach is in conflict with the "Guidance on Compulsory purchase process and The Crichel	The Applicant can confirm that initial contact was made by the Applicant's representative, with a representative of the Trust, on 10 th September 2021. The Trust responded swiftly to this initial response. Discussions are ongoing between the representatives with all the Trust's requests for information having been responded to and a record has been kept of communications between the representatives. The efforts of the Applicant's and the Trust's representatives to reach an agreement (in respect of the acquisition of land and rights) is ongoing and as such compulsory purchase remains a last resort to secure the and rights required. The rationale for acquiring the plots listed, and the rights being sought have been explained to the Trust's representative. The only property being sought for freehold acquisition, from the Trust, is plot 80a. The Applicant can confirm that seeking a negotiated agreement with the Trust's representative is ongoing and the use of compulsory purchase will be a matter of last resort.

A collaboration	between	SSE Thermal	and Equinor
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Text from Relevant Representation	Applicant's Responses
Down Rules" published by the Ministry of Housing, Communities & Local Government.	
The Trust is willing to engage with the Applicant to enter into an agreement in respect of the rights which the applicant requires to deliver the Project. We therefore urge the Applicant to contact us as soon as possible in respect of this.	
The Trust does not consider that it is necessary or justifiable to compulsorily acquire any part of its freehold interest forming part of the order limits.	
Protective Provisions Given that the works to be undertaken have the potential to impact upon water flows, and the navigation of the Stainforth & Keadby Canal, it is expected that the DCO should include provisions for the protection of the Canal & River Trust. The Trust is encouraged by the proposed inclusion of protective provisions within the draft DCO (schedule 10, Part 2).	The Applicant acknowledges the response from Canal and River Trust. As noted in the Statement of Common Ground (Document 8.8), also submitted at Deadline 1, the Applicant will continue to engage with the Canal and River Trust to agree detailed wording of Protective Provisions within the draft DCO (APP-005) for Work 9A, 9B and 11A.
We wish to highlight that works within several Work Areas have the potential to impact the Trust's assets. Whilst paragraph 18 refers to Work Nos 4A, 8A and 10B, we request that this should be expanded to include Work Nos 9A. 9B and 11A, which lie in proximity to the canal and involve works or processes that could potentially impact the canal.	

Text from Relevant Representation

The Trust note that the Applicants are seeking to include limitations on this liability (Schedule 10, part 2, paragraph 32(6)). The Trust cannot agree to a cap on the Applicant's indemnity for the following reasons:

- 1. The Trust is a registered charity with finite resources. The Trust do not have the ability to meet any costs that may exceed this cap.
- 2. The Trust is Navigation Authority for Stainforth & Keadby Canal and therefore have responsibilities to ensure safe navigation is maintained. This is a public interest which warrants protection in the provisions in the draft DCO.
- 3. The DCO confirms within schedule 10, paragraphs 22 and 31 that the Applicants are willing to comply with the Trust's Code of Practice for Works Affecting the Canal and River Trust. The code of practice is clear at paragraph 6.17 that any damage to the Trust's property much be reinstated and any costs much be reimbursed in full 'without monetary limit'.
- 4. A cap on indemnity is not ordinarily agreed as part of protective provisions. In particular, please refer to the Keuper Underground Gas Storage Facility Order 2017 and the Eggborough CCGT Order 2018 which relate to similar projects and include protective provisions recently negotiated by the Trust.

Applicant's Responses

The Applicant acknowledges the response from Canal and River Trust. As noted in the Statement of Common Ground (Document 8.8), also submitted at Deadline 1, the Applicant will continue to engage with the Canal and River Trust to agree limits of liability including any cap to the Applicant's indemnity.

Text from Relevant Representation	Applicant's Responses
5. The parameters of the Applicant's obligations to the Trust are clearly defined by the protective provisions. The works to be undertaken by the Applicant are entirely within the Applicant's control and therefore it is reasonable for the Applicant to be responsible for the full extent of any costs to which the Trust are put by reason of the execution of these works.	
We hope that these comments are of use. We would welcome the opportunity to work with the applicant to address the points above.	



18.0 RESPONSE TO ENVIRONMENT AGENCY ADDITIONAL SUBMISSION

18.1.1 The RR provided by the Environment Agency and the Applicant's response is provided in Table 19.1 below.

Table 19.8: Environment Agency's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
1.0 The Environment Agency's Role	All noted – no response required.
1.1 The Environment Agency is an executive non departmental public body, established under the Environment Act 1995.	
1.2 We were established to bring together responsibilities for protecting and improving the environment and to contribute to sustainable development. We take an integrated approach in which we consider all elements of the environment when we plan and carry out our work. This allows us to advise on the best environmental options and solutions, taking into account the different impacts on water, land, air, resources and energy.	
1.3 We help prevent hundreds of millions of pounds worth of damage from flooding. Our work helps to support a greener economy through protecting and improving the natural environment for beneficial uses, working with businesses to reduce waste and save money, and helping to ensure that the UK economy is ready to cope with climate change. We will facilitate, as appropriate, the development of low carbon sources of energy ensuring people and the environment are properly protected.	
1.4 We have three main roles:	
We are an environmental regulator – we take a risk-based approach and target our effort to maintain and improve	

Text from Relevant Representation	Applicant's Responses
environmental standards and to minimise unnecessary burdens on businesses. We issue a range of permits and consents.	
• We are an environmental operator – we are a national organisation that operates locally. We work with people and communities across England to protect and improve the environment in an integrated way. We provide a vital incident response capability.	
• We are an environmental adviser – we compile and assess the best available evidence and use this to report on the state of the environment. We use our own monitoring information and that of others to inform this activity. We provide technical information and advice to national and local governments to support their roles in policy and decision-making.	
1.5 The Environment Agency takes action to conserve and secure proper use of water resources, preserve and improve the quality of rivers, estuaries and coastal waters and groundwaters through pollution control powers and regulating discharge permits.	
1.6 We have regulatory powers in respect of waste management and remediation of contaminated land designated as special sites. We also encourage remediation of land contamination through the planning process.	
1.7 The Environment Agency is the principal flood risk management operating authority. It has the power (but not the	

Text from Relevant Representation	Applicant's Responses
legal obligation) to manage flood risk from designated main rivers and the sea. The Environment Agency is also responsible for increasing public awareness of flood risk, flood forecasting and warning and has a general supervisory duty for flood risk management. We also have a strategic overview role for all flood and coastal erosion risk management.	
2.0 Scope of these representations	All noted – no response required.
2.1 These Relevant Representations contain an overview of the project issues, which fall within our remit. They are given without prejudice to any future detailed representations that we may make throughout the examination process. We may also have further representations to make if supplementary information becomes available in relation to the project.	
2.2 We have reviewed the Development Consent Order (DCO) application, Environmental Statement (ES) and supporting documents submitted as part of the above mentioned application, which we received on 27 July 2021. Our comments are presented using the ES Chapter headings relevant to our remit below.	
3.0 Chapter 8 – Air Quality 3.1 We have reviewed this Chapter together with a high level review of Appendix 8B, which appear satisfactory for planning purposes. Please note, we have not undertaken a detailed review of the air quality modelling as the proposed combustion	The Applicant acknowledges the response from the Environment Agency. Reference should be made to the Statement of Common Ground (Document 8.2), also submitted at Deadline 1 which sets out matters agreed between the Parties.



Text from Relevant Representation

installation will require an operating permit under Section 1.1 Part A of the Environmental Permitting Regulations 2016. A detailed review of air quality modelling will be undertaken when we determine the permit application to operate the site. To date we have not received a permit application for this proposal.

- 3.2 However, in the interim we would raise two queries regarding the proposal:
- 3.2.1 The commissioning phase for the proposed plant is relatively extensive and expected to have substantial periods where emissions are in excess of the BAT-AELs and/or ELVs associated. For example, the Combined Cycle Gas Turbine (CCGT) commissioning is expected to last 6 months a significant amount of time. In Appendix 8B, Section 1.14, commissioning is essentially dismissed as insignificant. In Section 8.3.40 of Chapter 8, reappraising emissions during start up and shut down when FEED data becomes available is discussed. It is our view that it would be prudent to consider commissioning at this point.
- 3.2.2 Given the uncertainty associated with the amines degradation evaluation, and its inherent, potential seriousness (i.e. as carcinogenic substances), it is our view that a more specific review would be appropriate when the final details emerge (i.e. the solvent being used, the UK BAT position, the final positioning of the stack etc.).

Applicant's Responses

It has been agreed between the Applicant and the Environment Agency that the environmental permit for the Proposed Development should be granted as a variation to the existing Keadby Power Station environmental permit (EPR/YP3133LL/V011). The Applicant confirms that the environmental permit variation for the Proposed Development has been submitted following the two-stage permitting approach agreed with the Environment Agency, given the level of design information available at the time of this application, this stage being an application for a Permit-in Principle. The permit variation application was submitted to the Environment Agency in July 2021 and included an appraisal of BAT and air impacts based on the current design understanding. It is understood by the Applicant that the permit application is currently undergoing duly-made checks.

It has been agreed between Parties that a subsequent permit update may be required following completion of the detailed design to be specific to the design measures to be applied and provide further detail on plant commissioning and start-up and air and water discharges as appropriate.



Text from Relevant Representation	Applicant's Responses
4.0 Chapter 11 Biodiversity and Nature Conservation4.1 We have reviewed Chapter 11 and the relevant appendices and this is satisfactory.	The Applicant acknowledges the response from Environment Agency. Reference should be made to the Statement of Common Ground (Document 8.2), also submitted at Deadline 1 which sets out matters agreed between the Parties.
4.2 We support the recognition that Work Nos. 4A, 4B and 5 will need to accord with the Eels (England and Wales) Regulations 2009 (in relation to the provision of eel screens) and this has been included in the relevant parts of Schedule 2 Requirement 5(4) and 5(5) in respect of detailed design.	This is noted.
4.3 We consider that Requirement 6 proposed as part of Schedule 2 of the DCO is sufficient for the purpose of protecting and mitigating against any potential impacts on protected species (considered for those protected species within our remit). Regarding Requirement 6(1): It is recommended that due to the motility of species and time lapse between any DCO being granted and the start of construction, further survey works is carried out for all protected species highlighted as being present or potentially present on or surrounding the development site. Surveys should be no more than 3 years old at the time when construction begins and should include sites where previous surveys found no evidence (unless the site has been deemed as unsuitable and has not changed in the interim period).	The Framework Construction Environmental Management Plan (CEMP) (APP-160) includes a commitment to undertake further protected species surveys (noted as required under 'Monitoring/ Additional Survey Requirements' in Table 5) and as noted, these are proposed to be secured via Requirement 6 of the draft DCO (APP-005) to control potential effects on protected species that fall within the remit of the Environment Agency during construction of the Proposed Development. As is standard best practice, all ecological surveys will identify locations within the potential zone of influence of the Proposed Development that support conditions potentially suitable for riparian mammals including water vole.
4.4 Specifically in relation to water vole, we recommend that suitable habitat outside of the proposed development site are also surveyed to inform any mitigation strategy so that a fuller	



Text from Relevant Representation	Applicant's Responses
understanding of the population in the wider landscape can be gained. Surveys will also help to inform potential sites for water voles to be displaced or translocated into.	
4.5 We note that the need for protective measures for eels has been included in Requirement 5 and advise that protective measures are suitable for the smallest life stages of the species. A fish mitigation strategy/working method statement to ensure suitable protection would also be appropriate to include as part of Requirement 6(2), although this may be more appropriate to incorporate into the method statement required by Condition 11 in the Deemed Marine Licence (DML).	The wording of Requirement 5(4) and 5(5) of the draft DCO (APP-005), together with the environmental permit obligations, are intended to appropriately control the design of the selected cooling water abstraction to provide compliance with the Eels (England and Wales) Regulations 2009, noting the design and impact avoidance measures in Section 11.5 are designed to protect all life stages of eel and the commitment to the final design, which would be based on a BAT assessment, in accordance with the Joint Environment Protocols.
	A Fish Management Plan is further controlled via the CEMP (Requirement 17 of the Draft DCO (APP-005) which must be prepared in accordance with the Framework CEMP (APP-160) – the Applicant has confirmed to the Environment Agency that it would be happy to include the Fish Management Plan as a specific item in this Requirement if this would give further clarity.
4.6 Requirement 6(2)(b) and (5): Any biodiversity protection plan submitted and approved pursuant to sub-paragraph (1) or landscape and biodiversity management and enhancement plan submitted and approved pursuant to subparagraph (4), should	The Applicant confirms that biodiversity enhancement measures adopted within the Proposed Development design would include, but not be restricted to, appropriate shrub and tree planting.
not be limited to only shrub and tree planting. They should also include measures to protect and the management,	Requirement 6(4) of the draft DCO (APP-005) requires a landscaping and biodiversity management and enhancement

Text from Relevant Representation	Applicant's Responses
enhancement and creation of other priority habitats likely to be impacted by the proposed development, including, but not limited to, watercourses, canals and drains.	plan to be submitted to and approved by the relevant planning authority and 6(7) requires that this plan must be in accordance with the principles of the Landscaping and Biodiversity Management and Enhancement Plan (LBMEP) (APP-039) submitted. The LBMEP includes provision for the reinstatement of watercourses, canals and drains (refer to para 4.10.6, 4.10.15. In addition, para 5.2.37 – 5.2.40 explain the Applicant's proposals for enhancement of Keadby Common Drains.
4.7 Potential impacts on the Humber SAC & migratory fish We note that Schedule 13 includes conditions controlling piling works (Conditions 18 and 19) in the marine environment. Noise and vibration caused by percussive piling has the potential to damage migratory fish populations in the River Trent. The success of fish populations, particularly migratory salmon and lamprey, relies on their ability to gain safe passage through the Trent in order for them to complete their lifecycle. Any activity taking place in the Trent that hinders the ability of fish to make this journey, has the potential to threaten populations throughout the river catchment.	The Applicant acknowledges the response from Environment Agency and acknowledgement regarding agreement of the DML Condition 19 – the MMO being having been consulted on the DML prior to submission of the Application.
4.8 The ES identifies the key migration period for adult salmon as September to November (paragraph 11.5.10) and accordingly restricts all piling during this period, DML Condition 19. Environmental conditions can result in migration taking place beyond this restricted period, however we are satisfied that the most sensitive period is covered by Condition 19 and this	



Text from Relevant Representation	Applicant's Responses
appears to have been agreed with the Marine Management Organisation (MMO).	
5.0 Chapter 12 Water Environment and Flood Risk 5.1 Flood Risk to the site - We have been working closely with the applicant for some time regarding the issue of flood risk to the proposed development as the site lies (mainly) within Flood Zone 3a, with a small portion in Flood Zone 2. The site is at residual flood risk from the Isle of Axholme and the tidal River Trent, should a breach of the flood defences occur. 5.2 The applicant has updated the latest available detailed hydraulic modelling (Tidal Trent Model, Mott and Macdonald, 2013, including updated 2014 interim water levels) by undertaking a site specific breach adjacent to the proposed site. We are currently undertaking a review of the applicant's revised model (having raised several queries following our review of the initial model provided) but we are not yet in a position to confirm whether it is fit for purpose. 5.3 As the submitted Flood Risk Assessment utilises information from this model, we are similarly unable to confirm if it is	The Applicant acknowledges the response from Environment Agency and notes that further correspondence has also been provided to AECOM, on behalf of the Applicant, (12 October 2021) confirming that the updated hydraulic model is suitable for the Proposed Development. An updated Flood Risk Assessment (FRA) (AS-010) has been reviewed by the Environment Agency and submitted and accepted into examination. This assesses and presents the potential flood risks using results from the updated hydraulic modelling of the site specific breach scenario adjacent to the Proposed Development Site, uses the latest relevant climate change allowances and includes additional sensitivity tests using the Humber Extreme Water Levels (2020). The updated FRA (AS-010) demonstrates that the proposed mitigation measures are adequate to minimise flood risk. Reference should be made to the Statement of Common Ground (Document 8.2), also submitted at Deadline 1 which sets out matters agreed between the Parties including the commitment to update Requirement 14(2) to secure a minimum ground level for Work
appropriate to the scale, nature and location of the development. Therefore, we wish to register a holding objection on the grounds that the supporting Flood Risk Assessment may not accord with the requirements of the Overarching National Planning Statement for Energy (EN-1), Chapter 5.7 – Flood Risk. We will provide further detail on the outcome of our model	No. 1A and 1C of 2.8m AOD in the updated draft DCO (APP-005) to be submitted at Deadline 2.

Text from Relevant Representation	Applicant's Responses
review and on the issue of flood risk in our Written Representations. We consider that this holding objection is capable of being resolved during the examination process.	
6.0 Chapter 13 Geology, Hydrogeology and Land Contamination	
6.1 We have reviewed Chapter 13 of the ES and our comments below relate solely to the protection of the water environment in the vicinity of the site.	
6.2 Section 13.5.3 of Chapter 13 states that a detailed ground investigation will be undertaken before construction "to target the potentially contaminative sources identified, including the historical landfilling activities identified on the Proposed Development Site. Where risks are deemed to be unacceptable, further detailed quantitative risk assessment and if required, detailed remediation strategies will be developed accordingly, pursuant to the process set out by the planning authorities." These works are secured by Requirement 15 of the DCO.	All noted – no response required.
6.3 Controls on the method of piled foundations will also be regulated by Requirement 30 in the DCO. We are named as a consultee to the discharge of both of these Requirements and we can advise that from a controlled water protection perspective this is satisfactory.	
7.0 Environment Agency Land Holdings	The Applicant can confirm that discussions are ongoing with a representative of the Environment Agency with a view to reaching agreements in relation to the acquisition of rights. The

Text from Relevant Representation	Applicant's Responses
7.1 We note from the Book of Reference submitted with the application for the DCO that the applicant seeks possession of various plots of highway land where the Environment Agency is the owner of the subsoil and of other plots of land within Environment Agency ownership (though we understand most, if not all, on a temporary basis). It also seeks acquisition of various rights affecting Environment Agency land interests. It is currently unclear how such proposed acquisitions would affect the Environment Agency's operations, in particular in relation to its flood risk management role. At this stage therefore the Environment Agency must object to any acquisition of land or rights in relation to its land interests until it has had a proper opportunity to assess the potential effects of the acquisitions sought by the applicant on its ability to carry out its operations. We will be carrying out this assessment and discussing this matter with the applicant. We will update the Examining Authority on our position when we lodge our Written Representations.	representatives are sharing information in relation to the Environment Agency's property and the requirements of the Applicant in order to enable the Environment Agency to assess the impact of the acquisition of those rights. No freehold acquisition of Environment Agency land is being proposed.
8.0 Further Representations	Noted – no further response required.
8.1 In summary, we can confirm that we have no objection in principle to the proposed development, as submitted, but we may pursue an objection in relation to the Environment Agency land interests the applicant seeks to acquire. The objection in respect of flood risk is capable of being resolved and we will	

Text from Relevant Representation	Applicant's Responses
provide further details on this issue in our Written Representations.	
8.2 We reserve the right to add or amend these representations, including requests for DCO Requirements and protective provisions should further information be forthcoming during the course of the examination on issues within our remit.	

19.0 RESPONSE TO MINISTRY OF DEFENCE ADDITIONAL SUBMISSION

19.1.1 The RR provided by the Ministry of Defence and the Applicant's response is provided in Table 19.1 below.

Table 19.9: Ministry of Defence's RR and Applicant's Response

Text from Relevant Representation	Applicant's Responses
Proposal: Keadby 3 comprises a low carbon 'Combined Cycle Gas Turbine' ('CCGT') Power Station with a capacity of up to 910 megawatts electrical ('MWe') gross output, including Carbon Capture Plant ('CCP') and associated development (the 'Keadby 3 Low Carbon Gas Power Station'). The inclusion of a carbon capture plant means that the carbon dioxide (CO2) emissions from the power station can be captured and then transported by a CO2 export pipeline for secure storage in a suitable offshore geological site under the North Sea.	Noted – no response required.
In accordance with Section 56 of the PA 2008 and Regulation 8 of the APFP Regulations, this letter and the attached Section 56 Notice (Appendix 1 to this letter) provides notification that the Application was accepted by examination by The Planning Inspectorate on behalf of the SoS on 28 June 2021. The Planning Inspectorate on behalf of the SoS also issued The Section 56 Notice provides information on the Application and details of where, when and how the accepted application and a map showing where the proposed development is to be sited, and the environmental statement (together known as 'the Application Documents') and a document containing further environmental information compiled by the Applicant in response	

Text from Relevant Representation	Applicant's Responses
to advice issued by the Planning Inspectorate dated 28 June 2021 ('Further Environmental Information (July 2021)') can be inspected.	
Location: Land located in the vicinity of the existing Keadby Power Station, Keadby, Near Scunthorpe	Noted – no response required.
Grid Ref's:	
• E 482351 N 411796	
• E 482509 N 411552	
• E 482057 N 411634	
• E 481909 N 411870	
• E 481930 N 412221	
• E 482708 N 412110	
Thank you for consulting the Ministry of Defence (MOD) on the above request for an EIA and section 56 Notice which was received by this office on the 28/07/2021.	
Thank you for consulting Defence Infrastructure Organisation (DIO) on the above proposed development. This application relates to a site outside of Ministry of Defence (MOD) statutory safeguarding areas (SOSA). We can therefore confirm that the MOD has no safeguarding objections to this proposal.	The lack of safeguarding objections is noted – no response required.

Text from Relevant Representation	Applicant's Responses
Military Low Flying Training The airspace over the UK land mass is used to provide the UK Military Low Flying System to deliver essential military low flying training. The proposed development will occupy Low Flying Area 11 within which military fixed wing aircraft are permitted to fly down to 250 feet (76.2 metres) above terrain features. The development proposed will cause a potential obstruction hazard to these military low flying training activities. To address this impact, it would be necessary for the development to be fitted with MOD accredited 25 candela omni-directional red lighting with an optimised flash pattern of 60 flashes per minute of 200ms to 500ms duration or equivalent infrared lighting on the four tallest structures (Absorber Column, HRSG Building and HRSG Stack, CO2 Stripper).	The Applicant is content to provide the listed information to UK DVOF & Powerlines at the Defence Geography Centre as a condition.
The height of the development will necessitate that aeronautical charts and mapping records are amended. Defence Infrastructure Organisation (DIO) Safeguarding therefore requests that, as a condition of any planning permission granted, the developer must notify UK DVOF & Powerlines at the Defence Geographic Centre with the following information prior to development commencing:	
Precise location of development.	
Date of commencement of construction.	
Date of completion of construction.	

Text from Relevant Representation	Applicant's Responses
The height above ground level of the tallest structure.	
 The maximum extension height of any construction equipment. 	
Details of aviation warning lighting fitted to the structure(s)	
This information can be sent by e-mail to the Defence Geographic Centre at: dvof@mod.gov.uk	
MOD Safeguarding wishes to be consulted and notified about the progression of this proposal and any subsequent application(s)that may be submitted relating to it to verify that it will not adversely affect defence interests.	Noted – no response required.
I trust this is clear however should you have any questions please do not hesitate to contact me.	

