KEADBY
NEXT GENERATION
POWER STATION
Hydrogen-enabled flexible power

A collaboration between SSE Thermal and Equinor

The Keadby Next Generation Power Station Project

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

Land at, and in the vicinity of, the existing Keadby Power Station (Trentside, Keadby, Scunthorpe DN17 3EF)

Statutory Nuisance Statement

The Planning Act 2008

The Infrastructure Planning (Environmental Information Assessment) Regulations 2017

Applicant: Keadby Next Generation Limited

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GLOSSARY

Abbreviation	Description
APFP Regulations	Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009
BAT	Best Available Techniques
BAT-AEL	Best Available Techniques – Associated Emission Levels
BATc	Best Available Techniques Conclusions
BS	British Standards
CCGT	Combined Cycle Gas Turbine
CCS	Carbon Capture Storage
CEMP	Construction Environmental Management Plan
CO	Carbon Monoxide
DCO	Development Consent Order
DEFRA	Department for the Environment Food and Rural Affairs
DEMP	Decommissioning Environmental Management Plan
DMRB	Design Manual for Roads and Bridges
EIA	Environmental Impact Assessment
EIA Regulations	Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations)
ELV	Emission Limit Value
EMS	Environmental Management System
EPA 1990	The Environmental Protection Act 1990

Abbreviation	Description
GET	Guidance on Emerging Technologies
IAQM	Institute of Air Quality Management
IED	Industrial Emissions Directive – European Union Directive (2010/75/EU)
LCP	Large Combustion Plant
LOAEL	Lowest Observable Adverse Effect Level
MW	Megawatt
NGET	National Grid Electricity Transmission
NLC	North Lincolnshire Council
NO_3	Oxides of Nitrogen
NH_3	Ammonia
NRMM	Non-Road Mobile Machinery
NSIP	Nationally Significant Infrastructure Project
NSR	Noise Sensitive Receptor
PM	Particulate Matter
SoS	Secretary of State

Contents

Executive Summary

1. Keadby Next Generation Limited ('The Applicant') is seeking development consent for the construction, operation and maintenance of a Combined Cycle Gas Turbine ('CCGT') electricity generating station with a capacity of up to 910MW electrical output.

2. This Statutory Nuisance Statement identifies the matters set out in Section 79(1) of the Environmental Protection Act 1990 (the 'EPA 1990') in respect of statutory nuisance and considers whether the Proposed Development could cause statutory nuisance. It has been prepared to comply with Regulation 5(2)(f) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations') which requires a statement setting out whether a proposed development could cause a statutory nuisance, pursuant to Section 79(1) of the EPA 1990. If such a nuisance could occur the statement must set out how the applicant proposes to mitigate or limit the effects.

3. Potential statutory nuisance may include noise, artificial light, odours, insects, smoke, dust arising on premises, fumes, accumulations and keeping of animals. Without appropriate embedded mitigation and controls, various types of potential nuisance could potentially result from the construction, operation, maintenance and eventual decommissioning of the Proposed Development.

4. However, through the embedded mitigation in place and the controls provided for, as presented within the technical chapters in Volume I of the **Environmental Statement** (**Application Document Ref. 6.2**), and secured through Requirements and within the **draft Development Consent Order** (**Application Document Ref. 3.1**), it is expected that the Proposed Development is unlikely to give rise to any statutory nuisance under the EPA 1990. Therefore, it is appropriate to include within the Development Consent Order a provision for a defence against claims of statutory nuisance.

1. Introduction

1.1. Overview

1.1.1. This Statutory Nuisance Statement (**Application Document Ref**. **5.3**) has been prepared by Arup on behalf of Keadby Next Generation Limited ('the Applicant') which is a subsidiary of SSE plc. It forms part of the application for a Development Consent Order (DCO) (the 'Application'), that has been submitted to the Secretary of State (the 'SoS') for Energy Security and Net Zero 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 combined cycle gas turbine ('CCGT') electricity generating station on land at, and in the vicinity of, the existing Keadby Power Station, Trentside, Keadby, Scunthorpe DN17 3EF ('the Site').

1.1.3. The Keadby Next Generation Power Station ('the Proposed Development') is a new CCGT electricity generating station with a capacity of up to 910MW electrical output. The CCGT electricity generating station will be designed to run on 100% hydrogen and able to run on 100% natural gas or a blend of natural gas and hydrogen and will be located on land to the west of Keadby 1 and Keadby 2 Power Stations. The Proposed Development includes connections for cooling water, electricity, hydrogen and natural gas, and construction laydown areas and other associated development. It is described in full in **Environmental Statement (ES) Volume I Chapter 4**: The Proposed Development (**Application Document Ref. 6.2).**

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 Next Generation Power Station Order' ('the Order').

1.2. The Applicant

1.2.1. The Applicant is a subsidiary of the FTSE-listed SSE plc, one of the UK's largest and broadest-based energy companies, and the country's leading developer of renewable energy. Over the last 20 years, the SSE Group

has invested over £20 billion to deliver industry-leading offshore wind, onshore wind, CCGT, energy from waste, biomass, battery energy storage, energy networks and gas storage projects. Related SSE companies own and operate the adjacent Keadby 1 and 2 Power Stations and have the benefit of the DCO for Keadby 3 CCS Power Station (herein referred to as the 'Keadby CCS Power Station').

1.2.2. The Proposed Development is being developed with Equinor, one of the country's leading energy providers, supplying natural gas, oil and electricity. Equinor is developing multiple low-carbon hydrogen and carbon capture projects in the Humber, working towards transforming the UK's most carbon intensive industrial cluster into a net zero region.

1.2.3. SSE Renewables Limited operates Keadby Windfarm, which lies to the north and south of the Site and generates renewable electricity from 34 turbines, with a total installed generation capacity of 68MW.

1.2.4. SSE plc has set out a clear commitment to investment in low carbon power infrastructure, working with government and other stakeholders to create a Net Zero power system by 2040. This includes investment in flexible sources of electricity generation and storage for times of low renewable output which will complement other renewable generating sources, either using low carbon fuels and/ or capturing and storing carbon emissions.

1.2.5. The design of the Proposed Development demonstrates this commitment, and the Proposed Development will be built with a clear route to decarbonisation, consistent with SSE's Net Zero Acceleration Programme Plus and net zero transition plan which committed to the development and progression of new low carbon flexible power including hydrogen-fuelled generation.

1.3. The Proposed Development

1.3.1. The Proposed Development would comprise a high efficiency gas fired power station with an electrical output capacity of up to 910MWe and associated buildings, structures and plant and other associated development defined in Schedule 1 of the **Draft DCO** (**Application Document Ref. 3.1**) as Work Nos. 1-11 and shown on the **Works Plans** (**Application Document Ref. 2.3**).

1.3.2. The Proposed Development will include:

- a new-build CCGT electricity generating station fuelled by hydrogen and/or natural gas with a power output of up to 910MW (**Work No. 1**) including:

  - a CCGT plant;
  - cooling infrastructure;
  - natural gas and hydrogen blending equipment;
  - supporting facilities including administration and control buildings, workshops, storage buildings, effluent treatment facilities, fire water storage tank(s), demineralised water treatment plant including storage tank(s), and permanent laydown areas for operation and maintenance activities;

- a hydrogen supply pipeline, including a gas compound for the hydrogen supplier's apparatus and a hydrogen gas compound for the Applicant's apparatus (**Work No. 2**);
- a natural gas supply pipeline including a compound for the natural gas supplier's apparatus and a natural gas compound for the Applicant's apparatus (**Work No. 3**);
- electrical connection works for the export and import of electricity to and from the generating station and the existing 400kV National Grid Electricity Transmission (NGET) substation located adjacent to the Keadby Power Station site, including works within the substation (which would be undertaken by NGET) (**Work No. 4**);
- water supply connection works to provide cooling and make-up water to the generating station, including intake structures and an underground and/or overground water supply pipeline running between the generating station and the Stainforth and Keadby Canal (**Work No. 5**);
- connections to and use of an existing outfall and associated pipework for the discharge of used cooling water, surface water and treated effluent to the River Trent (**Work No. 6**);
- public water connection pipeline from a new connection on Chapel Lane to provide potable water to the generating station (**Work No. 7**);
- new permanent access to the generating station (**Work No. 8**), comprising:
  - maintenance and improvement of an existing private access road from the A18, including replacement of a private bridge (Mabey Bridge) (**Work No. 8A**);
  - installation of layby and gatehouse with barriers, enclosures, drainage and lighting north of the A18 junction (**Work No. 8B**) and associated utilities connections (**Work No. 8C**); and
  - emergency access route comprising the maintenance and improvement of an existing private track running between the generating station and Chapel Lane and including new private bridge crossing over Glew Drain (**Work No. 8D**);

- temporary construction and laydown areas (**Work No. 9A**);
- maintenance and improvement of the existing access routes running between the A18 and construction laydown areas (**Work No. 9B**); and between Skew Bridge adjacent to the A18 and a temporary construction laydown area associated with Mabey Bridge replacement (**Work No. 9C**);
- retention, maintenance and improvement and subsequent removal of existing temporary haul route from the Waterborne Transport Offloading Facility (**Work No. 9D**) and the inspection and repair of the existing jetty, and temporary placement of mobile cranes including the temporary oversailing of crane arms (**Work No. 9E**); and
- landscaping and biodiversity enhancement measures (**Work No. 10**);
- an allocation of land to meet the requirements of the Carbon Capture Readiness (Electricity Generating Stations) Regulations 2013 (**Work No. 11**).

1.3.3. The Applicant will be responsible for the construction, operation (including maintenance) and eventual decommissioning of the Proposed Development including the on-site connections to electricity, cooling water, hydrogen and natural gas supplies.

1.3.4. The Proposed Development will be capable of operating 24 hours per day, 7 days per week with programmed offline periods for maintenance.

1.3.5. The route for the hydrogen supply pipeline to the Proposed Development has not yet been confirmed. The supply pipeline is not included in the Proposed Development and will be progressed by a third party under a separate consent. In line with Government policy, it is recognised that developments such as the Proposed Development are needed to stimulate investment in the development of hydrogen production and supply infrastructure.

1.3.6. Further detail on the components of the Proposed Development is provided in **ES Volume I Chapter 4:** The Proposed Development (**Application Document Ref**. **6.2**). 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 (Application Document Ref. 2.3).**

1.4. The Site

1.4.1. The Site 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.

1.4.2. The existing Keadby Power Station site currently encompasses the operational Keadby 1 and Keadby 2 Power Station sites, including the Keadby 2 Power Station Carbon Capture and Readiness reserve space.

1.4.3. The Site encompasses an area of approximately 77.1 hectares (ha), of which approximately 26.7 ha of land is proposed for construction laydown.

1.4.4. Multiple proposed land uses together make up the Site, with the different areas described in turn below and shown on **ES Volume III Figure 3.3** Indicative Parts of the Site Plan (**Application Document Ref. 6.4**). These terms have been used to describe land use zones within the Site.

1.4.5. The Site is divided into the following areas of permanent and temporary land use (the proposed use is described in more detail in **ES Volume I Chapter 3**: Site and Surrounding Area (**Application Document Ref. 6.2**)):

- Main Site;
- Ancillary Facilities;
- Water Connections;
- Electricity Connections;
- Waterborne Transport Off-loading Area;
- Construction Laydown Areas;
- Access routes (emergency, permanent and construction);
- Connections to Keadby 1 and Keadby 2 power stations; and
- Additional areas for landscaping and biodiversity provision.

1.5. The DCO Process

1.5.1. The Proposed Development falls within the definition of a NSIP under Section 14(1)(a) and 15(2) of the 2008 Act as a 'generating station exceeding 50 MW'.

1.5.2. As a NSIP project, the Applicant is required to seek a DCO to construct and operate the generating station, under Section 31 of the 2008 Act. Section 37 of the 2008 Act also governs the form, content and accompanying documents that are required as part of a DCO application. The requirements are implemented through the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) ('APFP Regulations') which state that an application

must be accompanied by an ES, where a development is considered to be 'EIA development' under the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) (as amended).

1.5.3. An application for development consent for the Proposed Development has been submitted to the Planning Inspectorate (PINS) acting on behalf of the SoS. Subject to the application being accepted, PINS will then examine it and make a recommendation to the SoS who will then decide whether to grant a DCO. The acceptance, examination, recommendation and decision stages are subject to fixed timescales and the decision is therefore anticipated to fall in 2026.

1.5.4. A DCO, if granted, has the effect of providing deemed planning permission for a development, in addition to a number of other consents and authorisations where specified within the Order.

1.6. The Purpose and Structure of this Document

1.6.1. The purpose of this document is to meet the requirements of Regulation 5(2)(f) of the APFP Regulations, which states that any application for development consent should be accompanied by a statement setting out whether the development proposal could cause a statutory nuisance pursuant to Section 79(1) of EPA 1990. If such a nuisance could occur, the statement must set out how the applicant proposes to mitigate or limit the effects.

1.6.2. The document is structured as follows:

- Section 2 describes the legislative context for the identification of matters which constitute statutory nuisance and the methodology for assessment of these;
- Section 3 provides a summary of the assessment of the statutory nuisances, using information from the ES (**ES Volume I Chapters 8**: Air Quality, **Chapter 9**: Noise and Vibration, **Chapter 10**: Traffic and Transport, and **Chapter 14**: Landscape and Visual Amenity, (**Application Document Ref. 6.2**), including any relevant mitigation measures and residual effects, whether embedded within the design of the Proposed Development or additional mitigation secured though requirements within the DCO; and
- Section 4 presents the conclusions of this statement.

2. Identification and Assessment of Statutory Nuisance

2.1. Legislative Framework

2.1.1. Section 79(1) of the Environmental Protection Act 1990 ('EPA 1990') identifies the matters which are considered to be statutory nuisance as follows:

"(a) any premises in such a state as to be prejudicial to health or a nuisance;

(b) smoke emitted from premises so as to be prejudicial to health or a nuisance;

(c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;

(d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;

(e) any accumulation or deposit which is prejudicial to health or a nuisance;

(f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance;

(fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance;

(fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance;

(g) noise emitted from premises so as to be prejudicial to health or a nuisance;

(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street [or in Scotland, road]; and

(h) any other matter declared by any enactment to be statutory nuisance."

2.2. Statutory Nuisance and Nationally Significant Infrastructure Projects

2.2.1. Paragraph 4.15 of the 'Overarching National Policy Statement for Energy EN-1' (Department for Energy Security and Net Zero, 2023) states:

"Section 158 of the Planning Act 2008 confers statutory authority for carrying out development consented to by, or doing anything else authorised by, a Development Consent Order.

Such authority is conferred only for the purpose of providing a defence in any civil or criminal proceedings for nuisance. This would include a defence for proceedings for nuisance under Part III of the Environmental Protection Act 1990 (EPA) (statutory nuisance) but only to the extent that the nuisance is the inevitable consequence of what has been authorised.

The defence does not extinguish the local authority's duties under Part III of the EPA 1990 to inspect its area and take reasonable steps to investigate complaints of statutory nuisance and to serve an abatement notice where satisfied of its existence, likely occurrence or recurrence.

The defence is not intended to extend to proceedings where the matter is "prejudicial to health" and not a nuisance."

2.2.2. Paragraph 4.15.6 goes on to state that at the application stage, the SoS considers sources of nuisance under Section 79(1) of the EPA 1990 and how these may be mitigated or limited, so that appropriate 'requirements' can be included in any DCO that is granted.

2.2.3. Whilst, as this document demonstrates, it is not expected that the construction, operation (including maintenance) and decommissioning of the Proposed Development would cause a statutory nuisance, Article 41 of the **Draft DCO** (**Application Document Ref. 3.1**) contains a provision that would provide a defence to proceedings in respect of statutory nuisance (Section 79 (1) (b, c, d, e, fb, g or h) should they be initiated against the Applicant or any future operators of the Proposed Development (in respect of Section 79(1) of the EPA 1990 (statutory nuisances and inspections thereof)), subject to certain criteria.

2.3. Assessment of Significance Methodology

2.3.1. The **ES Volume I** (**Application Document Ref 6.2**) for the Proposed Development addresses the likelihood of significant effects arising that

could constitute a statutory nuisance, as identified in Section 79(1) of the EPA 1990.

2.3.2. **ES Volume I Chapter 4**: The Proposed Development (**Application Document Ref. 6.2**) and the **Outline Construction Environmental Management Plan** (CEMP) (**Application Document Ref. 7.4**) describe impact avoidance measures embedded into the proposed design and methods of construction.

2.3.3. **ES Volume I Chapter 8**: Air Quality, **ES Volume I Chapter 9**: Noise and Vibration, **ES Volume I Chapter 10**: Traffic and Transport and **ES Volume I Chapter 14:** Landscape and Visual Amenity (**Application Document 6.2)** and their associated appendices in **ES Volume II** (**Application Document Ref. 6.3**), where relevant, provide detailed assessments of these potential statutory nuisances and identify mitigation measures where necessary.

2.3.4. The ES provides an assessment of the potential effects on receptors as negligible, minor, moderate or major. Moderate and major effects are considered to be significant for the purposes of the Environmental Impact Assessment ('EIA').

2.3.5. Unless otherwise stated, decommissioning effects are considered to be comparable to or less than those associated with construction of the Proposed Development for the reasons set out in the ES. Specific impact assessments undertaken for the Proposed Development, including those for air quality, noise and vibration, surface water and hydrology and landscape, conclude that relevant best practice mitigation measures would be in place during any decommissioning works, and no additional mitigation has been identified as necessary for the decommissioning phase of the Proposed Development.

3. Potential Nuisance Impacts

3.1.1. This section discusses the nuisance impacts set out in the EPA 1990 in relation to the Proposed Development and summarises the embedded and additional mitigation measures that will be applied to prevent these.

3.2. EPA 1990 Section 79(1) (a) Any Premises in Such a State as to be Prejudicial to Health or a Nuisance

3.2.1. The EPA 1990 describes a potential statutory nuisance to be caused by 'any premises in such a state as to be prejudicial to health or a nuisance'.

3.2.2. Statutory nuisance as a result of poor housekeeping or maintenance could only occur if the low standards of housekeeping or maintenance practices are in place.

3.2.3. The Proposed Development will operate activities which are required by the Environmental Permitting (England and Wales) Regulations 2016 to be regulated by the Environment Agency under an Environmental Permit. The Environmental Permit requires each regulated facility to have an Environmental Management System (EMS). To minimise the risk of any such statutory nuisance from occurring through poor maintenance or housekeeping, operational and management controls will be put in place, such as the establishment of a preventative maintenance plan, regular housekeeping inspections, waste management procedures and compliance with the requirements of the EMS and Environmental Permit for the Proposed Development. These measures are described in **ES Volume I Chapter 4**: The Proposed Development (**Application Document Ref. 6.2**).

3.3. EPA 1990 Section 79(1) (b) Smoke Emitted from Premises so as to be Prejudicial to Health or a Nuisance, (c) Fumes or Gases Emitted from Premises so as to be Prejudicial to Health or a Nuisance

3.3.1. No smoke, due to the nature of the proposed natural gas and hydrogen fuels is expected to be generated from the Proposed Development during normal operation. Fumes and gases that may be relevant are considered in the following sections.

Construction Phase

3.3.2. Construction air emissions are considered in **ES Volume II Appendix 8A**: Air Quality – Construction Phase (**Application Document Ref. 6.3**) and

ES Volume I Chapter 8: Air Quality (**Application Document Ref. 6.2**). The study area for Non-Road Mobile Machinery (NRMM) emissions has been applied, in line with IAQM guidance (2024), extending to human receptors located up to 250m from the nearest construction activity; and/or within 50m of a public road used by construction traffic that is within 250m of the construction site entrance.

3.3.3. Receptors potentially affected by the exhaust emissions associated with construction phase vehicle movements are those located within 50m of a public road used by construction traffic to access the Site. A list of these receptors can be found in Table 8.8 of **ES Volume I Chapter 8 (Application Document Ref. 6.2).** The emissions that were assessed were oxides of nitrogen (NO_x), Particulate Matter 10 (PM_{10}) and Particulate Matter 2.5 ($PM_{2.5}$)

3.3.4. The assessment identified that the effect of emissions resulting from the changes in traffic flows due to construction traffic on human health are considered to be negligible as outlined in **ES Volume II**: Appendix 8A Construction (**Application Document Ref. 6.3**).

3.3.5. The potential for NRMM emissions within the Site to result in air quality impacts on local human health is also considered negligible.

3.3.6. The effects of abnormal loads (waterborne transport) have been considered. The exact number and size/weight of the vessels is not currently known at this stage and is based on specific construction methodologies that will be confirmed during detailed design. It is anticipated that approximately 35 - 40 such deliveries are expected over a 12-month period. Due to the limited number of vehicles and river vessels accessing these routes, the limited duration of activities and the intermittent hours that the routes will be used, it is considered that the impact on local human health is likely to be negligible.

Operational Phase

3.3.7. The pollutants considered within the assessment of air emissions for the main stacks in **ES Volume I Chapter 8**: Air Quality (**Application Document Ref 6.2**) are primarily those prescribed within the EU's Industrial Emissions Directive (IED) (European Commission, 2010). These are:

- Oxides of nitrogen (NO_x), expressed as nitrogen dioxide (chemical formula NO_2);
- Carbon monoxide (chemical formula CO); and
- Ammonia (chemical formula NH_3).

3.3.8. The study area for the air quality assessment extends up to 15km from the Site in order to assess the potential impacts on ecological receptors, in line with the Environment Agency risk assessment methodology (Defra and Environment Agency, 2016). In terms of human health receptors, impacts from the Proposed Development become negligible within approximately 2km and therefore sensitive receptors for the human health impacts are concentrated within a 2km study area.

3.3.9. The Proposed Development will be designed and operated to meet the large combustion plant requirements of the IED (European Commission, 2010) and Environment Agency Guidance on Emerging Technologies (GET): Hydrogen Combustion: comply with emission limit values (Environment Agency 2024), and its operations will be strictly regulated by the Environment Agency under an Environmental Permit. It will be operated and maintained in accordance with a preventative maintenance programme.

3.3.10. The impacts of the above pollutants released from the operation of the Proposed Development are predicted to result in negligible adverse effects at all human health receptors within the study area. The impact of NO_2, CO, NH_3 can therefore be considered to be not significant at all human health receptors.

3.3.11. Monitoring strategies for the operational plant will be outlined in the Environmental Permit which will likely involve continuous monitoring of key pollutant emissions from the stack, with annual reporting of results to the Environment Agency and annual independent validation of the monitoring results.

3.3.12. The IED (European Commission, 2010) provides operational limits and controls to which regulated plant must comply, including Emission Limit Values (ELV) for pollutant releases into the air from plant combusting various fuel types. The operator of a plant covered by the IED is required to employ Best Available Techniques ('BAT)' for the prevention or minimisation of emissions to the environment, to ensure a high level of protection of the environment as a whole. European BAT reference documents ('BRefs') and BAT Conclusions ('BATc') are published for each industrial sector under the IED, and they include BAT-Associated Emission Levels ('BAT-AEL') which are expected to be met through the application of BAT.

3.3.13. Hydrogen-fired CCGTs are not included within the LCP BRef (European Commission, 2017) or BATc (European Commission, 2021) and therefore there are no BAT-AELs. As an emerging technology, there are no BAT-AELs for hydrogen-fired CCGTs included within the LCP BRef (European Commission, 2017) or BATc
(European Commission, 2021). However, the Environment Agency has

developed Guidance on Emerging Technologies ('GET'): Hydrogen Combustion: comply with emission limit values (Environment Agency 2024), where an ELV of 68.5 mg/Nm^3 for 100% hydrogen is proposed.

3.3.14. The Proposed Development will be designed such that process emissions to air comply with the relevant ELV requirements specified in either the IED, or, if tighter, the LCP BRef (European Commission, 2017) or BATc (European Commission, 2021) or the Environment Agency's GET (Environment Agency 2024).

3.3.15. No quantitative assessment of traffic emissions during the operation of the Proposed Development has been made, as the numbers of additional vehicles associated with the operational phase of the Proposed Development are below the National Highways Design Manual for Roads and Bridges (DMRB, 2024) and the Institute for Air Quality Management (IAQM) (IAQM, 2017) screening criteria for requiring such assessment.

3.4. EPA 1990 Section 79(1) (d) Any Dust, Steam, Smell or Other Effluvia Arising on Industrial, Trade or Business Premises and Being Prejudicial to Health or a Nuisance, and e) Any Accumulation or Deposit which is Prejudicial to Health or a Nuisance

Dust, Accumulations and Deposits

3.4.1. The scale and nature of the Proposed Development and activities associated with construction and operation have the potential to produce dust. 'Dust' is defined in British Standard 6069-2:1994 (British Standards Institute, 1994) as particulate matter in the size range 1µm – 75µm (microns) in diameter and is primarily composed of mineral materials and soil particles. If emitted at high concentrations this could theoretically be transported to local receptors.

3.4.2. Anticipated dust, accumulations and deposits from construction, operations (including maintenance works) and decommissioning activities at the Proposed Development are described below.

Construction Phase

3.4.3. The movement and handling of soils and spoil during demolition and construction activities for the Proposed Development is anticipated to lead to the generation of some short-term airborne dust. The occurrence and significance of dust generated by earth moving operations is difficult to estimate and depends heavily upon the meteorological and ground

conditions at the actual time and location of the work, and the nature of the activity being carried out.

3.4.4. During the earthworks and construction phase, based on IAQM guidance (2024), unmitigated dust impacts were concluded in **ES Volume I Chapter 8**: Air Quality (**Application Document Ref. 6.2)** to have a 'high risk' for ecological impacts, 'medium to high risk' for dust soiling impacts, and 'low to medium risk' for human health impacts.

3.4.5. Emissions of dust and particulates from the construction phase of the Proposed Development will be controlled in accordance with industry best practice, through incorporation of appropriate control measures according to the risks posed by the activities undertaken, as determined through this assessment process. The management of dust and particulates and application of adequate mitigation measures will be enforced through the CEMP. These measures may include:

- cutting and grinding operations, if required, will be conducted using equipment and techniques that reduce emissions and incorporate appropriate dust suppression measures;
- damping down of dust-generating equipment and vehicles within the Site and the provision of dust suppression in all areas of the Site that are likely to generate dust;
- use water suppression and regular cleaning during earth moving activities;
- materials stockpiles likely to generate dust enclosed or securely sheeted, damped down or stabilised as appropriate;
- covering materials, deliveries or loads entering and leaving the construction site;
- mixing of grout or cement-based materials will be undertaken using appropriate techniques/mitigation;
- haul routes will be surfaced and maintained;
- enforcement of speed limits on haul roads;
- measures will be taken to keep roads and accesses clean; and
- vehicle, plant and equipment maintenance records will be kept on-site and reviewed regularly.

3.4.6. Following the implementation of management methods, the potential effect from fugitive emissions of construction dust would not be significant.

Operational Phase

3.4.7. The operation of the Proposed Development in accordance with the IED and Environmental Permit, the activities of the operation and maintenance

teams, the implementation of formal operating procedures and the installation and operation of automated controls, will minimise the potential for statutory nuisance from atmospheric emissions.

3.4.8. For the operational assessment, the impact of point source emissions at human health receptors has been determined from isopleth figures of pollutant dispersion and maximum model output at discrete receptor locations.

3.4.9. The assessment concludes that plant design (i.e. appropriate stack height and location) and emission control measures (e.g. combustion controls and Selective Catalytic Reduction) will provide sufficient embedded mitigation to avoid any significant effects. As such, additional mitigation measures are not required for the Proposed Development. No significant effects were identified within the assessment.

Visual Plume (Steam)

3.4.10. Due to the high temperature of the release from the Power Plant stack and the clean nature of the combustion gases, it is not anticipated that there will be a visible plume from the main stack. There is potential for visible plumes to occur from the hybrid cooling towers, however these are plume abated to reduce the potential for visible plumes to form. An assessment on the visibility of the plume is presented in **ES Volume I Chapter 8**: Air Quality (**Application Document Ref. 6.2**).

3.4.11. **ES Volume I Chapter 8:** Air Quality (**Application Document Ref. 6.2**) includes an assessment of visible plumes from the hybrid cooling towers during the operation of the facility. The assessment was carried out to inform the assessments in **ES Volume I Chapter 14**: Landscape and Visual (**Application Document Ref. 6.2**) and **ES Volume I Chapter 15:** Cultural Heritage (**Application Document Ref. 6.2**).

3.4.12. The results of the assessment indicate that there could be a low frequency of a short visible plume present once the Proposed Development becomes operational. The average length of visible plumes is anticipated to be less than 1m, with a maximum length of approximately 241m predicted for only one year of the five years of meteorological data used in the assessment.

3.4.13. **ES Volume I Chapter 14:** Landscape and Visual Amenity and **ES Volume I Chapter 15**: Cultural Heritage (**Application Document Ref. 6.2**) did not

report significant effects as a result of the findings of the cooling towers plume assessment.

Smells

3.4.14. As outlined in **ES Volume I Chapter 8:** Air Quality (**Application Document Ref. 6.2**) in Table 8.5, the Proposed Development is not considered to have the potential to cause odour.

3.5. EPA 1990 Section 79(1) (f) Any Animal Kept in Such a Place or Manner as to be Prejudicial to Health or a Nuisance

3.5.1. No animals will be kept at the Proposed Development.

3.6. EPA 1990 Section 79(1) (fa) Any Insects Emanating from Premises so as to be Prejudicial to Health or a Nuisance

3.6.1. Due to the operational nature of the Proposed Development, it is not considered to be a suitable habitat for vermin based on experience of other similar developments.

3.6.2. Litter on site has the potential to attract vermin or be blown into neighbouring properties. Regular inspections of the Site, boundary fence, gates and access road in the immediate vicinity of the facility entrance will be carried out. Staff will be encouraged to correctly dispose of litter as part of the site rules and site induction.

3.6.3. Pests and vermin are therefore not expected to create a statutory nuisance.

3.6.4. Due to the nature of the process, no insects are expected to emanate from the Proposed Development or be attracted to it.

3.7. EPA 1990 Section 79(1) (fb) Artificial Light Emitted from Premises so as to be Prejudicial to Health or a Nuisance

3.7.1. During construction, temporary lighting is proposed to enable safe working on the construction site in the hours of darkness. The lighting will be arranged so that glare is minimised outside the construction site.

3.7.2. The appointed contractors will be responsible for establishing the required approach to and levels of lighting and a Lighting Strategy will be prepared for approval pursuant to a DCO requirement as required. An **Outline**

Lighting Strategy is provided as part of the DCO application (**Application Document Ref. 5.11**).

3.7.3. The lighting required during the construction and operation stages of the Proposed Development will be designed to reduce unnecessary light spill outside of the Site boundary.

3.8. EPA 1990 Section 79(1) (g) Noise Emitted from Premises so as to be Prejudicial to Health or a Nuisance, and (h) Noise that is Prejudicial to Health or a Nuisance and is Emitted from or Caused by a Vehicle, Machinery or Equipment in a Street

3.8.1. A noise assessment has been carried out as part of **ES Volume I Chapter 9:** Noise and Vibration (**Application Document Ref. 6.2**) to assess the impacts of noise generated from the construction and operation of the Proposed Development. The results of the assessment are outlined in the below sections

Construction Phase

3.8.2. In the absence of mitigation, during construction, noise effects at all residential Noise Sensitive Receptors (NSR) during construction of the Site within core daytime hours (07:00 – 19:00 weekdays and Saturday morning between 07:00 – 13:00) are predicted to be not significant, due largely to the distances between the works and NSR.

3.8.3. Working outside core hours is not expected to be required however it may be necessary for some construction activities to take place continuously over day, evening and night periods, although the exact nature of such works is unknown at this stage. **ES Volume I Chapter 9:** Noise and Vibration (**Application Document Ref. 6.2**) therefore provides an assessment of noise and vibration for potential construction works outside the core working hours. This concludes that if the construction activities undertaken and the intensity of working is comparable to core hour working, then this could result in significant noise effects at one noise sensitive receptor at night-time in the absence of additional mitigation.

3.8.4. Measures will therefore be put in place to control or restrict activities outside core hours to avoid significant effects. By timing construction works and avoiding noisier activities outside core working hours, significant adverse effects can therefore be avoided. A Requirement in the **Draft DCO** (**Application Document Ref. 3.1**) secures the working hours and the approach to exceptions to the core working hours. Any such works

will be minimised and will be carefully managed to reduce effects on the local community.

3.8.5. The assessment in **ES Volume I Chapter 9:** Noise and Vibration (**Application Document Ref. 6.2**) assessed the noise effects from topsoil stripping for laying the cable to the 400 KV Substation east of the Main Development Area and found that the effects are considered to be not significant at all NSR at any time. All soils will be managed in accordance with the Department for the Environment Food and Rural Affairs (Defra) Construction Code of Practice for the Sustainable Use of Soil on Development Sites (Defra, 2009) to minimise impacts on soil structure and quality. An Outline Soil Resources Plan is provided in the **Outline CEMP (Application Document Ref. 7.4)**.

3.8.6. During the daytime core hours and Saturday mornings, predicted noise effects during piling for the replacement of Mabey Bridge are assessed as not significant. Should it be necessary to undertake piling works in the night-time effects would be significant at one of the NSR.

3.8.7. Noise generated from construction traffic are assessed as not significant at all residential NSR.

3.8.8. During construction, the construction contractor will follow best practicable means to reduce noise and vibration impacts. Best practicable means include the following (where practicable):

- abiding by agreed construction noise limits at locations to be agreed with NLC;
- ensuring that processes are in place to minimise noise before works begin and ensuring that best practicable means are being achieved throughout the construction programme, including the use of localised screening around significant noise producing plant and activities;
- ensuring that modern plant is used, complying with applicable UK noise emission requirements, and selection of inherently quiet plant where possible;
- hydraulic techniques for breaking to be used, where practical, in preference to percussive techniques where reasonably practicable;
- use of lower noise piling (e.g. rotary bored or hydraulic jacking) rather than driven piling techniques, where reasonably practicable;
- off-site pre-fabrication for components of the Proposed Development, where reasonably practicable;
- all plant and equipment being used for the works to be properly maintained, silenced where appropriate, operated to prevent excessive noise and switched off when not in use;

- all contractors to be made familiar with current legislation and the guidance in BS 5228 (Parts 1 and 2) (BSI, 2014a and b), which should form a prerequisite of their appointment;
- loading and unloading of vehicles, dismantling of site equipment such as scaffolding or moving equipment or materials within the Site to be conducted in such a manner as to minimise noise generation, as far as reasonably practicable;
- appropriate routing of construction traffic on public roads and along access tracks, to reduce construction traffic noise, as far as reasonably practicable (see **ES Volume I Chapter 10:** Traffic and Transportation (**Application Document Ref. 6.2**);
- provision of information to NLC and local residents to advise of potential noisy works that are due to take place; and
- monitoring of noise complaints and reporting to the Applicant for immediate investigation.

3.8.9. Method statements for construction management, traffic management, and overall site management will be prepared in accordance with best practice and relevant British Standards, to mitigate and minimise impacts of construction works as far as is reasonably practicable.

3.8.10. Regular communication with the local community throughout the construction period will also serve to publicise the works schedule, giving notification to residents regarding periods when higher levels of noise may occur during specific operations, and providing lines of communication where complaints can be addressed.

Operational Phase

3.8.11. During operation, in the absence of mitigation, effects would range from negligible/ minor adverse (not significant) to up to major adverse (significant) on NSR. It is expected that residual effects after mitigation would be not significant if noise levels are reduced to the NLC criterion (no greater than +3 dB excess of rating level over the background sound level) which is below the Lowest Observable Adverse Effect Level ('LOAEL') (no

greater than +5 dB excess of rating level over the background sound level).

3.8.12. The proposed noise sources likely to require mitigation measures are pumps, the Heat Recovery Steam Generator ('HRSG') building (and any auxiliary plant) and the water-cooling towers.

3.8.13. During the detailed design stage, potential significant residual noise effects will be mitigated by location and design. This may include the following:

- reducing the breakout noise from plant through use of enhanced enclosures, or potentially containing them within a building;
- reducing air inlet noise emissions by addition of further in-line attenuation;
- reducing stack outlet noise emissions by addition of silencers or sound mitigating panels;
- reducing fin fan cooler noise emissions by screening, re-sizing, fitting low noise fans or attenuation;
- screening or enclosing the compressors or other equipment;
- use of screening or bunding to shield receptors from noise sources; or
- orientation of plant within the Site to provide screening of low-level noise sources by other buildings and structures, or orientating fans and the air inlets away from sensitive receptors.

3.8.14. It is anticipated after the implementation of noise mitigation, the residual effects on NSR are considered to be not significant.

3.8.15. During detailed design, an operational noise control scheme (including agreed noise limits) will be prepared. The Proposed Development will be operated in accordance with an Environmental Permit, issued and regulated by the Environment Agency. This will require operational noise from the generating station to be controlled through the use of BAT, which will be determined through the Environmental Permit application. It is proposed that operational noise limits will also be secured by a requirement of the **Draft DCO (Application Document Ref. 3.1)**.

Decommissioning Phase

3.8.16. The effects of eventual decommissioning are considered to be comparable to, or less than, those assessed for construction activities.

3.8.17. Decommissioning would require submission of a Decommissioning Environmental Management Plan (DEMP) to the relevant planning

authority for its approval, secured by a Requirement of the **Draft DCO (Application Document Ref. 3.1)**. Appropriate best practice mitigation measures will be applied during any decommissioning works and documented in a DEMP; no additional mitigation for decommissioning of the Proposed Development beyond such best practice specified in BS 5228 is considered necessary to specify at this stage.

3.9. EPA 1990 Section 79(1) (h) Any Other Matter Declared by any Enactment to be a Statutory Nuisance

Traffic and Abnormal Loads

3.9.1. Traffic and the effect of abnormal loads during construction, operation (including maintenance) and decommissioning of the Proposed Development have been assessed and is reported in **ES Volume I Chapter 10**: Traffic and Transport (**Application Document Ref. 6.2.10**).

3.9.2. An **Outline Construction Traffic Management Plan** ('CTMP') (**Application Document Ref. 7.5**) will be implemented outlining management measures for traffic and any abnormal loads during the construction phase of the Proposed Development.

3.9.3. Once the Proposed Development is operational, up to circa 50 permanent operational roles would be created who will work shifts. Due to the very low traffic flows this would generate, and the proposed use of the new operational access off the A18, rather than via the existing Keadby Power Station entrance, no additional impact avoidance measures are proposed.

3.9.4. Decommissioning would be expected to require some traffic movements associated with the removal (and recycling, as appropriate) of material arising from demolition and potentially the import of materials for land restoration and re-instatement. To minimise the impacts of decommissioning upon local highways, it is anticipated that controls on traffic management would be secured via the DEMP that would be prepared prior to demolition activities commencing.

4. Conclusions

4.1.1. This Statement has identified the matters set out in Section 79(1) of the EPA 1990 in respect of statutory nuisance and considers whether the Proposed Development could cause a statutory nuisance. Potential nuisance aspects have been considered and through embedded mitigation no statutory nuisance effects are considered likely to occur.

4.1.2. The operation of the Proposed Development would be regulated by the Environment Agency through an Environmental Permit and would undergo regular monitoring and reporting. Embedded mitigation and appropriate controls will be secured by appropriate DCO requirements. As a result, it is not expected that the construction, operation, maintenance or decommissioning of the Proposed Development would engage Section 79(1) and give rise to any statutory nuisance under the EPA 1990. It is therefore appropriate to include a defence against statutory nuisance proceedings within the Order.

5. References

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