EAST YORKSHIRE SOLAR FARM

East Yorkshire Solar Farm EN010143

Environmental Statement

Volume 2, Appendix 16-1: Legislation, Policy and Guidance for Other Environmental

Topics

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Environmental Statement Volume 2, Appendix 16-1: Legislation, Policy and Guidance for Other Environmental Topics

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1. Introduction

1.1 Purpose of This Appendix

- 1.1.1 This Environmental Statement (ES) appendix identifies and describes the legislation, policy and supporting guidance considered relevant to the assessment of the likely significant effects of the Scheme in relation to the following topics, as set out in Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]:
 - a. Air Quality (Section 2);
 - b. Glint and Glare (Section 3);
 - c. Ground Conditions (Section 4);
 - d. Major Accidents or Disasters (Section 5);
 - e. Telecommunications, Television Reception and Utilities (Section 6); and
 - f. Electric and Magnetic Field (Sections 7); and
 - g. Materials and Waste (Section 8).
- 1.1.2 Legislation and policy are considered at national and local levels.
- 1.1.3 This appendix does not assess the Scheme against legislation and policy this is assessed in the Planning Statement. Instead, the purpose of this appendix, in considering relevant legislation and policy, is twofold:
 - To identify legislation and policy that could influence the sensitivity of receptors (and therefore the significance of effects) and any requirements for mitigation; and
 - b. To identify legislation and policy that could influence the methodology to be used within the ES assessment which is presented in the Environmental Statement. For example, a policy may require the assessment of an impact or the use of a specific methodology.
- 1.1.4 The following sections identify and describe the legislation, policy and supporting guidance considered specifically relevant to the above-mentioned topics assessment, which has been taken into account preparing the ES.

2. Air Quality

2.1 National Legislation

- 2.1.1 Regulation 5(2)(c) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 1) requires that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the likely significant direct and indirect effects of the Scheme on Air Quality.
- 2.1.2 The principal air quality legislation within the United Kingdom is the Air Quality Standards Regulations (as amended 2016) (Ref. 2), including

- amendments, such as 'The Environment (Miscellaneous Amendments) (EU Exit) Regulations 2020' (Ref. 3).
- 2.1.3 The UK is no longer a member of the European Union (Ref. 4). However, some EU law was carried over into UK law after Brexit, known as 'retained EU law', via the European Union (Withdrawal) Act 2018. Retained EU law included domestic law which implemented or related to former EU obligations, as well as EU legislation which was directly applicable in the UK without implementing legislation. The Retained EU Law (Revocation and Reform) Act 2023 has modified the legal framework for these two types of retained EU law, effective from 1 January 2024, and renamed them as 'assimilated law'.
- 2.1.4 The Clean Air for Europe (CAFE) programme (Ref. 5) revisited the management of Air Quality within the EU and replaced much of the existing air quality legislation with a single legal act, Directive 2008/50/EC on Ambient Air Quality and Cleaner Air for Europe (Ref. 6). This Directive repealed and replaced the EU Framework Directive 96/62/EC on Ambient Air Quality Assessment and Management and its associated Daughter Directives 1999/30/EC (Ref. 7), 2000/69/EC (Ref. 8), 2002/3/EC (Ref. 9) (relating to limit values for ambient air pollutants) and the Council Decision 97/101/EC (Ref. 10) which established a reciprocal exchange of information and data within Member States.

Environment Act 2021

- 2.1.5 The Environment Act 2021 (Ref. 11) amended the Environment Act 1995 (Ref. 12) to address environmental protection and the delivery of the Government's 25-year environment plan following Brexit. It includes provisions to establish a post-Brexit set of statutory environmental principles and ensure environmental governance through an environmental watchdog, the Office for Environmental Protection (OEP). Part IV of the 2021 Act requires the Government to update the UK National Air Quality Strategy (Ref. 2) (AQS) which contains standards, objectives and measures for improving ambient air quality. Details regarding the AQS and recent updates are provided below.
- 2.1.6 The 2021 Act proposes that the Secretary of State will publish a report reviewing the AQS every five years (as a minimum and with yearly updates to Parliament), in the form of the Environmental Improvement Plan.

Environmental Improvement Plan 2023

2.1.7 The 25 Year Environment Plan, originally published in January 2018, sets out the actions the UK Government will take to help the natural world regain and retain good health (Ref. 13). The Environment Plan was updated in 2023 to include targets specifically for England (Ref. 14). The Plan outlines several actions that are being taken to improve air quality, most notably the publication of the Clean Air Strategy (referenced earlier) and the introduction of several Clean Air Zones (CAZs) across England. Emphasis is also placed on PM_{2.5} concentrations, with several new targets for PM_{2.5} concentrations stated within the plan including:

- a. "A legal target to reduce population exposure to PM_{2.5} by 35% in 2040 compared to 2018 levels, with a new interim target to reduce by 22% by the end of January 2028"; and
- b. "A legal target to require a maximum annual mean concentration of 10 micrograms of PM_{2.5} per cubic metre (μg/m³) by 2040, with a new interim target of 12 μg/m³ by the end of January 2028."
- 2.1.8 The PM_{2.5} target was set on the 30 January 2023 in The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 (Ref. 15). This legislation only refers to national compliance.

2.2 National Policy

- 2.2.1 National Clean Air Strategy In 2019, the UK government released its Clean Air Strategy 2019 (Ref. 16), part of its 25 Year Environment Plan. The Strategy placed greater emphasis on improving air quality in the UK than had been seen before.
- 2.2.2 A new AQS was published in April 2023 (Ref. 17). It sets out the actions the government expects local authorities to take in support of achieving the new national PM_{2.5} targets, by reducing emissions from sources within their control.
- 2.2.3 The Air Quality Objectives set out in the AQS (Ref. 16, Ref. 17) have been outlined in legislation solely for the purposes of local air quality management. Under the local air quality management (LAQM) regime, the local authority has a duty to carry out regular assessments of air quality against the objectives and if it is unlikely that they will be met in the given timescale, they must designate an Air Quality Management Area (AQMA) and prepare an Air Quality Action Plan (AQAP) with the aim of achieving the objectives. The boundary of an AQMA is set by the governing local authority to define the geographical area that is to be subject to the management measures to be set out in a subsequent action plan. Consequently, it is not unusual for the boundary of an AQMA to include within it, relevant locations where air quality is not at risk of exceeding an Air Quality Objective.
- 2.2.4 The UK's national Air Quality Objectives for the pollutants of relevance to this assessment are displayed in **Table 1**, including the new national targets for PM_{2.5} concentrations stated within the Environment Act 2021 (Ref. 11), the Environmental Improvement Plan 2023 (Ref. 14) and the Air Quality Strategy 2023 (Ref. 17).

Table 1. Key Air Quality Strategy Objectives

Pollutant	Averaging Period	Value	Maximum Permitted Exceedances / Target
Nitrogen Dioxide	Annual Mean	40 μg/m³	None
(NO ₂)	Hourly Mean	200 μg/m³	18 times per year
Particulate Matter	Annual Mean	40 μg/m³	None
(PM ₁₀)	24-Hour Mean	50 μg/m³	35 times per year
		^a 20 μg/m ³	None
		^b 10 μg/m ³	By 2040
Fine Particulate Matter (PM _{2.5})		^c 12 μg/m³	Interim target, (by end of January 2028)
	Evangura raduation	^b 35%	By 2040
	Exposure reduction compared to 2018	° 22%	Interim target, (by end of January 2028)

^a Air Quality Strategy 2007 (Ref. 18)

National Policy Statements

- 2.2.5 The Scheme's proposed energy generating technology is not currently specifically referenced by a National Policy Statement (NPS). However, the EIA takes account of the following NPSs, which are considered to be matters that will be important and relevant to the Secretary of State's decision as to whether to grant a DCO for the Scheme under section 105 of the Planning Act 2008:
 - a. Overarching National Policy Statement for Energy (EN-1) (Ref. 18),
 - b. National Policy Statement for Renewable Energy Infrastructure (EN-3) (Ref. 20), and
 - c. National Policy Statement for Electricity Networks Infrastructure (EN-5) (Ref. 21).
- 2.2.6 The NPSs set out the Government's energy policy, the need for new renewable energy and electricity networks infrastructure, and guidance for determining an application for a DCO in relation to such infrastructure. The NPSs include specific criteria and issues which should be considered by applicants in their assessments of the effects of their scheme, and how the decision maker should consider these impacts and mitigation measures.

^b The Environment Act 2021 (Ref. 11)

^c Environmental Improvement Plan 2023 (Ref. 14), Air Quality Strategy 2023 (Ref. 17).

2.2.7 The relevant NPS requirements, together with an indication of where in the ES the information is provided to address these requirements, are provided in **Table 2.** Relevant NPS requirements for the air quality assessment.

Table 2. Relevant NPS requirements for the air quality assessment

Relevant NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
NPS EN-1		
Paragraph 5.2.6	Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement (ES).	Addressed in section 16.2 of Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.2.7	 The ES should describe: any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project; the predicted absolute emission levels of the proposed project, after mitigation methods have been applied; existing air quality levels and the relative change in air quality from existing levels 	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]. presents baseline air quality characteristics, and a Dust Risk Assessment (DRA) considering human and ecological receptors. Construction phase road traffic volumes are not expected to meet thresholds above which detailed air quality modelling is required. However, should this change, road traffic emissions are quantitatively assessed via a detailed dispersion modelling exercise as part of the EIA and reported within the ES.
Paragraph 5.2.8	Many activities involving air emissions are subject to pollution control. The considerations set out in Section 4.10 on the interface between planning and pollution control therefore apply.	Addressed in section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.2.9	The [Secretary of State] should generally give air quality considerations substantial weight where a project would lead to a deterioration in air quality in an area, or leads to a new area where air quality breaches any national air quality limits. However air quality considerations will also be important where substantial changes in air quality	Addressed in section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

Paragraph 5.2.10

In all cases the [Secretary of State] must take account of any relevant statutory air quality limits. Where a project is likely to lead to a breach of such limits the developers should work with the relevant authorities to secure appropriate mitigation measures to allow the proposal to proceed. In the event that a project will lead to noncompliance with a statutory limit the [Secretary of State] should refuse consent.

levels are expected, even if this does not lead to any

breaches of national air quality limits.

Addressed in section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

Paragraph

The [Secretary of State] should consider whether 5.2.11 – 5.2.13 mitigation measures are needed both for operational and construction emissions over and above any which may form part of the project application. A construction management plan may help codify mitigation at this stage. In doing so the [Secretary of State] may refer to the conditions and advice in the Air Quality Strategy or any successor to it.

Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] presents embedded mitigation measures for the Scheme in relation to Air Quality

The mitigations identified in Section 5.13 on traffic and transport impacts will help mitigate the effects of air emissions from transport.

Draft National Policy Statements

- 2.2.8 The Government is currently reviewing and updating the Energy NPS's in order to reflect its policies and strategic approach for the energy system set out in the Energy White Paper (December 2020) (Ref. 22), and to ensure that the planning policy framework enables the delivery of the infrastructure required for the country's transition to net zero carbon emissions. As part of the Energy NPS review process, the Government published a suite of Draft Energy NPSs for consultation on 30 March 2023. These include the following Draft NPSs, which are expected to be important and relevant to the Secretary of State's decision under section 105 of the Planning Act 2008, and have therefore been taken into account in the EIA for the Scheme:
 - a. Draft Overarching National Policy Statement for Energy (EN-1) (Draft NPS EN-1) (Ref. 23),
 - b. Draft National Policy Statement for Renewable Energy Infrastructure (EN-3) (Draft NPS EN-3) (Ref. 24), and
 - c. Draft National Policy Statement for Electricity Networks Infrastructure (Ref. 25) (EN-5).
- 2.2.9 The consultation on the details of these provisions closed on 23 June 2023, but the documents have not been finalised or adopted.
- 2.2.10 The transitional provisions in the draft EN-1 state that the suite of NPSs will only have effect once designated in relation to those applications that are accepted for examination after the date of designation. The date for submission of the Application may mean that there is no NPS specifically in relation to ground mounted solar in force at the time, but the draft NPS are "important and relevant" matters, and are matters which the Secretary of State should have regard to and place significant weight on.
- 2.2.11 Given the importance and relevance of these Draft NPSs, the EIA approach for the Scheme takes account of these new emerging documents. Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, Table 3 indicates where the information to address these requirements is provided within the ES. From a review of the draft documents, it is considered that the draft provisions do not materially change the assessment approach undertaken in accordance with the existing NPS's

Table 3. Relevant Draft NPS requirements for the air quality assessment

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Draft NPS EN-1		
Paragraph 5.2.6	Proximity to emission sources can have significant impacts on sensitive receptor sites for air quality, such as education or healthcare sites, residential use or sensitive or protected ecosystems. Projects near a sensitive receptor site for air quality should only be proposed in exceptional circumstances if no viable alternative site is available. In these instances, substantial mitigation of any expected emissions will be required	[EN010143/APP/6.1].
Paragraph 5.2.7	Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the ES.	Addressed in section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.2.8	 The ES should describe: a. existing air quality levels and the relative change in air quality from existing levels; b. any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project; c. the predicted absolute emission levels of the proposed project, after mitigation methods have been applied; and d. any potential eutrophication impacts. 	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] presents baseline air quality characteristics, and a Dust Risk Assessment (DRA) considering human and ecological receptors. Construction phase road traffic volumes are not expected to meet thresholds above which detailed air quality modelling is required. However, should this change, road traffic emissions are quantitatively assessed via a detailed dispersion modelling exercise as part of the EIA and reported within the ES.

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Paragraph 5.2.9	Defra publishes future national projections of air quality based on estimates of future levels of emissions, traffic, and vehicle fleet. Projections are updated as the evidence base changes and the applicant should ensure these are current at the point of an application. The applicant's assessment should be consistent with this but may include more detailed modelling to demonstrate local impacts	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] – Defra emission factors have not been required for this project as impacts from traffic have been scoped out of the assessment.
Paragraph 5.2.10	Where a proposed development is likely to lead to a breach of the air quality thresholds or affect the ability of a non-compliant area to achieve compliance within the timescales set out in the most recent relevant air quality plan at the time of the decision, the applicant should work with the relevant authorities to secure appropriate mitigation measures to ensure that those thresholds are not breached.	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] – there is no risk of breaching the air quality thresholds.
Paragraph 5.2.11	The Secretary of State should consider whether mitigation measures are needed both for operational and construction emissions over and above any which may form part of the project application. A construction management plan may help codify mitigation at this stage. In doing so the Secretary of State should have regard to the Air Quality Strategy or any successor to it and should consider relevant advice within Local Air Quality Management guidance.	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] — mitigation measures for the construction phase have been set out and are included in the Framework Construction Environmental Management Plan (CEMP) [EN010143/APP/7.7].
Paragraph 5.2.13	Many activities involving air emissions are subject to pollution control. The considerations set out in Section 4.11 on the interface between planning and pollution control therefore apply. The SoS must also consider duties under other legislation including duties under the Environment Act 2021 in relation to environmental targets and have	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] – no emissions to air from the operation of the Scheme.

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	regard to policies set out in the Government's Environmental Improvement Plan.	
Paragraph 5.2.14	The Secretary of State should generally give air quality considerations substantial weight where a project would lead to a deterioration in air quality in an area or leads to a new area where air quality breaches any national air quality limits or statutory air quality objectives. However, air quality considerations will also be important where substantial changes in air quality levels are expected, even if this does not lead to any breaches of national air quality limits or statutory air quality objectives.	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] – changes in air quality due to the scheme are not expected.
Paragraph 5.2.15	The Secretary of State should give air quality considerations substantial weight where a project is proposed near a sensitive receptor site, such as an education or healthcare facility, residential use or a sensitive or protected habitat.	Section 16.2 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1] – sensitive receptors have been screened
Paragraph 5.2.16	Where a project is proposed near to a sensitive receptor site for air quality, if the applicant cannot provide justification for this location, and a suitable mitigation plan, the Secretary of State should refuse consent.	Not applicable.
Paragraph 5.2.17	In all cases, the Secretary of State must take account of any relevant statutory air quality limits and statutory air quality objectives. If a project will lead to non-compliance with a statutory limit the Secretary of State should refuse consent.	Not applicable.

National Planning Policy Framework (NPPF)

- 2.2.12 The NPPF (Ref. 26) sets out the Government's planning policies for England and how these should be applied. Paragraph 5 of the NPPF goes on to confirm that the NPPF may be a matter that is both important and relevant for the purposes of assessing DCO applications. The EIA for the Scheme therefore has regard to the relevant policies of the NPPF as part of the overall framework of national policy.
- 2.2.13 The relevant NPPF paragraphs, together with an indication of where in the ES the information is provided to address these requirements, are provided in **Table 4.**

Table 4. Relevant NPPF requirements for the air quality assessment

Relevant **NPPF** paragraph reference

Requirement of the NPPF

Location of information provided to address this

Paragraph 174

Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a. protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b. preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- c. remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

Section 16.2 of Chapter 16: Other **Environmental Topics, ES Volume 1** [EN010143/APP/6.1] sets out mitigation measures pertaining to air quality.

Paragraph 186 Planning policies and decisions should sustain and contribute towards compliance with relevant limit values or national objectives for pollutants, taking into account the presence of Air Quality Management Areas and Clean Air Zones, and the cumulative impacts from individual sites in local areas. Opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. So far as possible these opportunities should be considered at the Clean Air Zone, and air quality limits are plan-making stage, to ensure a strategic approach and limit the need for issues to be reconsidered when determining individual applications. Planning decisions should ensure that any new development in Air Quality Management Areas and Clean Air Zones is consistent with the local air quality action plan.

Section 16.2 of Chapter 16: Other **Environmental Topics, ES Volume 1** [EN010143/APP/6.1] provides a preliminary assessment of the effects of the Scheme on air quality. The Scheme is not located in or near to an AQMA or not in danger of being exceeded.

Guidance

- 2.2.14 The National Planning Practice Guidance (NPPG) (Ref. 27) was published on the 24 June 2014 to provide more in-depth guidance to the NPPF.
- 2.2.15 The NPPG notes that air quality assessments should include the following information (paragraph 5):
 - a. The existing air quality in the study area (existing baseline);
 - b. The future air quality without the Scheme in place (future baseline); and
 - c. The future air quality with the Scheme in place (with mitigation).
- 2.2.16 Paragraph 7 states that assessments need to be proportionate to the nature and scale of development proposed and the potential impacts (taking into account existing air quality conditions), and because of this, assessments are likely to be location specific.

2.3 Local Policy and Guidance

Policy

2.3.1 The following local policy is relevant to the assessment of Air Quality effects of the Scheme.

Table 5. Relevant local legislation, policy and guidance for air quality

Relevant Document	Relevant policies
East Riding Local Plan 2016 (Ref. 28)	Policy EC5: Supporting the energy sector Policy S2: Addressing climate change Policy ENV6: Managing Environmental Hazards
East Riding Local Plan Update 2020- 2039 (2022) (Ref. 29)	Policy EC5: Supporting the energy sector Policy S2: Addressing climate change Policy ENV6: Managing Environmental Hazards
Selby District Local Plan (2005) (Ref. 30)	ENV2: Environmental Pollution and Contaminated Land
Selby District Council Core Strategy Local Plan 2013 (Ref. 31)	Policy SP15: Climate Change Policy SP17: Renewable Energy Policy SP18: Protecting and enhancing the environment
Selby District Council Local Plan Publication Version (Ref. 32)	Policy NE7: Air Quality Policy NE8: Pollution and Contaminated Land

Guidance

- 2.3.2 When determining the significance of the air quality assessment results with the Scheme, this assessment follows the non-statutory best practice guidance relating to air quality and development control published by Environmental Protection UK (EPUK) and the Institute of Air Quality Management (IAQM) (Ref. 33).
- 2.3.3 The guidance ensures that air quality is adequately considered during landuse planning and development control process and is applicable to assessing the effect of changes in exposure of members of the public consequential to residential and mixed-use developments. This is of particular importance in urban areas where air quality is of a poorer standard.
- 2.3.4 The guidance states that: "Land-use planning can play a critical role in improving local air quality. At the strategic level, spatial planning can provide for more sustainable transport links between the home, workplace, educational, retail and leisure facilities, and identify appropriate areas for potentially polluting industrial development. For an individual development proposal, there may be associated emissions from transport or combustion processes providing heat and power."

3. Glint and Glare

3.1 National Legislation, Policy and Guidance

Legislation

3.1.1 There is no legislation relevant to the glint and glare assessment.

Policy

3.1.2 The suite of relevant energy NPSs and the NPPF do not expressly mention glint and glare, however reference is made in NPS EN-1 (Ref. 18) to safeguarding aviation interests affected by energy developments. For the Scheme this would include the impacts of glint and glare. The relevant NPS requirements associated with this receptor that influence the glint and glare assessment, together with an indication of where in the ES chapter the information is provided to address these requirements, are provided in **Table 6.**

Table 6. Relevant NPS requirements for the glint and glare assessment

Relevant NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
NPS EN-1		
Paragraph 5.4.10	Where the proposed development may have an effect on civil or military aviation and/or other defence assets an assessment of potential effects should be set out in the ES.	This is taken account in the glint and glare assessment, and a summary is presented in Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.4.11	The applicant should consult the MoD, CAA, NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or other defence interests.	No significant impacts have been predicted within the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]. Therefore, consultation has not been required.
Paragraph 5.4.12	Any assessment of aviation or other defence interests should include potential impacts of the project upon the operation of CNS infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures. It should also assess the cumulative effects of the project with other relevant projects in relation to aviation and defence.	This is taken account in the glint and glare assessment, and a summary is presented in Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.4.13	If any relevant changes are made to proposals during the pre- application and determination period, it is the responsibility of the applicant to ensure that the relevant aviation and defence consultees are informed as soon as reasonably possible.	Consultation has been undertaken throughout and the consultees notified when relevant design changes were made. Further detail is contained within the Consultation Report [EN010143/APP/5.1].
Paragraph 5.4.14	The [Secretary of State] should be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence assets have been addressed by the applicant and that	This is taken account in the glint and glare assessment, and a summary is presented in

Relevant NPS paragraph reference

Requirement of the NPS

Location of information provided to address this

any necessary assessment of the proposal on aviation or defence Chapter 16: Other Environmental Topics interests has been carried out. In particular, it should be satisfied **ES Volume 1 [EN010143/APP/6.1]**. that the proposal has been designed to minimise adverse impacts on the operation and safety of aerodromes and that reasonable mitigation is carried out. It may also be appropriate to expect operators of the aerodrome to consider making reasonable changes to operational procedures. When assessing the necessity, acceptability and reasonableness of operational changes to aerodromes, the [Secretary of State] should satisfy itself that it has the necessary information regarding the operational procedures along with any demonstrable risks or harm of such changes, taking into account the cases put forward by all parties. When making such a judgement in the case of military aerodromes, the [Secretary of State] should have regard to interests of defence and national security.

Draft National Policy Statements

- 3.1.3 Draft NPS EN-3 (Ref. 24) sets out specific policy in relation to glint and glare from solar development.
- 3.1.4 Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, **Table 7** indicates where the information to address these requirements is provided within the ES. From review of the draft documents, it is considered that the draft provisions do not change the assessment approach.

Table 7. Relevant Draft NPS requirements for the Glint and Glare assessment

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Draft NPS EN-3		
Paragraph 3.10.93	Solar panels are specifically designed to absorb, not reflect, irradiation. However, solar panels may reflect the sun's rays at certain angles, causing glint and glare. Glint is defined as a momentary flash of light that may be produced as a direct reflection of the sun in the solar panel. Glare is a continuous source of excessive brightness experienced by a stationary observer located in the path of reflected sunlight from the face of the panel. The effect occurs when the solar panel is stationed between or at an angle of the sun and the receptor.	All ground-based receptors have been mapped out within the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.94	Applicants should map receptors to qualitatively identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application.	The geometric possibility and intensity of Glint and Glare impacts have been assessed and inform the visibility assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.95	When a quantitative glint and glare assessment is necessary, applicants are expected to consider the geometric possibility of glint and glare affecting nearby receptors and provide an assessment of potential impact and impairment based on the angle and duration of incidence and the intensity of the reflection.	The correct panel type has been used when producing the model to reflect the angle, duration of incidence and intensity of reflection. Further discussion is contained within Chapter 2: The Scheme and Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.96	The extent of reflectivity analysis required to assess potential impacts will depend on the specific project site	The footprint of the panel area has been assessed to represent a worst-case scenario. Further discussion is

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	and design. This may need to account for 'tracking' panels if they are proposed as these may cause differential diurnal and/or seasonal impacts.	contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.97	When a glint and glare assessment is undertaken, the potential for solar PV panels, frames and supports to have a combined reflective quality may need to be assessed, although the glint and glare of the frames and supports is likely to be significantly less than the panels	Not applicable.
Paragraph 3.10.125	Applicants should minimise the use of security lighting. Any lighting should utilise a passive infra-red (PIR) technology and should be designed and installed in a manner which minimises impact.	No mitigation is required as the Glint and Glare impacts are not significant, as shown in the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.126	Applicants may consider using screening between potentially affected receptors and the reflecting panels to mitigate the effects.	Glint and Glare impacts have been assessed as not significant with the current layout, as shown within the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.127	Applicants may consider adjusting the azimuth alignment of or changing the elevation tilt angle of a solar panel, within the economically viable range, to alter the angle of incidence. In practice this is unlikely to remove the potential impact altogether but in marginal cases may contribute to a mitigation strategy	All receptors that fall within defined study areas have been assessed within the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Paragraph 3.10.149	Solar PV panels are designed to absorb, not reflect, irradiation. However, the Secretary of State should assess the potential impact of glint and glare on nearby homes, motorists, public rights of way, and aviation infrastructure (including aircraft departure and arrival flight paths).	Aviation impacts have been assessed as part of the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 3.10.150	Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic controllers in certain conditions, there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms	All ground-based receptors have been mapped out within the glint and glare assessment contained within Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

National Planning Policy Framework

- 3.1.5 The NPPF, under the planning practice guidance for Renewable and Low Carbon Energy (Ref. 26), sets out requirements specifically regarding the consideration of solar farms.
- 3.1.6 The relevant NPPF paragraphs, together with an indication of where in the ES the information is provided to address these requirements, are provided in **Table 8**.

Table 8. Relevant NPPF requirements for the Glint and Glare assessment

Relevant NPPF Requirement of the NPPF paragraph reference

Location of information provided to address this

Paragraph 13

'What are the particular planning considerations that relate to large scale ground-mounted solar photovoltaic Farms?

The deployment of large-scale solar farms can have a negative impact on the rural environment, particularly in undulating landscapes. However, the visual impact of a well-planned and well-screened solar farm can be properly addressed within the landscape if planned sensitively.

Particular factors a local planning authority will need to consider include:

- The proposal's visual impact, the effect on landscape of glint and glare (see guidance on landscape assessment) and on neighbouring uses and aircraft safety;
- b. The extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;
- c. The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.'

The particular planning considerations can be found in **Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].** Glint and Glare impacts on surrounding receptors has been assessed, no significant impacts have been predicted to occur.

Guidance

Aviation Assessment Guidance

- 3.1.7 The UK Civil Aviation Authority (CAA) issued interim guidance relating to Solar Photovoltaic Systems (SPV) on 17 December 2010 and was subject to a CAA information alert 2010/53. The formal policy was cancelled on 7 September, 2012 (Ref. 34) however the advice is still applicable until a formal policy is developed. The relevant aviation guidance from the CAA is presented below.
- 3.1.8 The CAA Interim Guidance makes a number of recommendation for planning applications relating to SPV. For example, it is recommended that, as part of a planning application, SPV developers provide safety assurance documentation (including risk assessment) regarding the full potential impact of the SPV installation on aviation interests.
- 3.1.9 Where proposed developments in the vicinity of aerodromes require an application for planning permission, the relevant LPA typically consults aerodrome operators or NATS when aeronautical interests might be affected. This consultation procedure is a statutory obligation in the case of certain major airports, and may include military establishments and certain air traffic surveillance technical sites. These arrangements are explained in Department for Transport Circular 1/2003.
- 3.1.10 In some instances, an aviation stakeholder (i.e pilots, airfields, users of airfields etc) can refer to the Air Navigation Order (ANO) 2009 with regard to safeguarding. Key points from the document are presented below.
- 3.1.11 A person must not exhibit in the United Kingdom any light which
 - a. by reason of its glare is liable to endanger aircraft taking off from or landing at an aerodrome;
 - b. or (b) by reason of its liability to be mistaken for an aeronautical ground light is liable to endanger aircraft.
- 3.1.12 If any light which appears to the CAA to be a light described in paragraph (1) is exhibited, the CAA may direct the person who is the occupier of the place where the light is exhibited or who has charge of the light, to take such steps within a reasonable time as are specified in the direction
 - a. To extinguish or screen the light; and
 - b. To prevent in the future the exhibition of any other light which may similarly endanger aircraft.
- 3.1.13 The direction may be served either personally or by post, or by affixing it in some conspicuous place near to the light to which it relates.
- 3.1.14 In the case of a light which is or may be visible from any waters within the area of a general lighthouse authority, the power of the CAA under this article must not be exercised except with the consent of that authority.
- 3.1.15 A person must not in the United Kingdom direct or shine any light at any aircraft in flight so as to dazzle or distract the pilot of the aircraft. The

- document states that no 'light', 'dazzle' or 'glare' should be produced which will create a detrimental impact upon aircraft safety.
- 3.1.16 The above guidance refers to potential distractions, such as glare, that can cause safety issues for aircraft when flying into airfields. There is a particular focus on ensuring there is no detrimental impact upon aircraft safety.

Rail Assessment Guidance

- 3.1.17 The Railway Safety and Standards Board (RSSB) guidance (Ref. 35) provides an overview of the signal sighting assessment process that is used to confirm compatibility of lineside signalling system, assets with train operations. Reflections and Glare are mentioned in "A.5 Reflection and glare Appendix A: Compatibility Factors that Prevent Reliable Reading". Within this section it mentions the following Guidance:
- 3.1.18 "G A.5.1.2 A5 is present if direct glare or reflected light is directed into the eyes or into the lineside signalling asset that could make the asset appear to show a different aspect or indication to the one presented.
- 3.1.19 G A.5.1.3 A5 is relevant to any lineside signalling asset that is capable of presenting a lit signal aspect or indication.
- 3.1.20 G A.5.1.4 The extent to which excessive illumination could make an asset appear to show a different signal aspect or indication to the one being presented can be influenced by the product being used. Requirements for assessing the phantom display performance of signalling products are set out in GKRT0057 section 4.1.
- 3.1.21 G A.5.1.5 Problems arising from reflection and glare occur when there is a very large range of luminance, that is, where there are some objects that are far brighter than others. The following types of glare are relevant:
 - a) Disability glare, caused by scattering of light in the eye, can make it difficult to read a lit display.
 - b) Discomfort glare, which is often associated with disability glare. While being unpleasant, it does not affect the signal reading time directly, but may lead to distraction and fatigue.
- 3.1.22 G A.5.1.6 Examples of the adverse effect of disability glare include:
 - a) When a colour light signal presenting a lit yellow aspect is viewed at night but the driver is unable to determine whether the aspect is a single yellow or a double yellow.
 - b) Where a colour light signal is positioned beneath a platform roof painted white and the light reflecting off the roof can make the signal difficult to read.
- 3.1.23 G A.5.1.7 Options for militating against A5 include:
 - a) Using a product that is specified to achieve high light source: phantom ratio values.
 - b) Alteration to the features causing the glare or reflection.

Relevant Document

- c) Provision of screening."
- 3.1.24 A5 is referring to reflections and glare in the above passage.
- 3.1.25 Additionally, there is some text on the driver's field of vision and how minor distractions can reduce visibility of signals if viewed towards the driver's field of vision. The following is in "F6.6 b) of Appendix F: Guidance on Field of Vision":
 - "Sensitivity to movement in the peripheral field, even minor distractions can reduce the visibility of the asset if it is viewed towards the peripheral field of vision. The presence of clutter to the sides of the running line can be highly distracting (for example, fence posts, lamp-posts, traffic, or non-signal lights, such as house, compatibility factors or security lights."
- 3.1.26 The RSSB guidance refers to the effect of glare and reflections upon train drivers and signals. Predominantly the guidance focus' on the ability of the train driver to see and accurately read the signals. However, there has been reference to phantom lighting, with this only being an issue if the signal is facing in the same direction from which the glare is coming.

3.2 Local Legislation, Policy and Guidance

3.2.1 The following local policy (**Table 9**) is relevant to the assessment of the effects of the Scheme on Glint and Glare

Table 9. Relevant local legislation, policy and guidance (glint and glare)

	•
East Riding Local Plan 2016 (Ref. 28)	Policy EC5: Supporting the renewable and low carbon energy sector
East Riding Local Plan Update 2020- 2039 (2022) (Ref. 29)	Policy EC5: Supporting the renewable and low carbon energy sector
Selby District Council Core Strategy Local Plan 2013 (Ref. 31)	Policy SP17: Low Carbon and Renewable Energy
Selby District Council Local Plan Publication Version 2022 (Ref. 32)	Policy SG10: Low Carbon and Renewable Energy (Strategic Policy)

Relevant policies

- 3.2.2 Policy EC5 of the East Riding Local Plan (Ref. 28)East Riding Local Plan Update 2020-2039 (Ref. 29), states that developments and their associated infrastructure should be acceptable in terms of the effect of developments on light including reflection and glint and glare.
- 3.2.3 Policy SP17 of the Selby District Council Core Strategy (2013) (Ref. 31) states that all development proposals for new sources of renewable energy and low-carbon energy generation and supporting infrastructure be designed and located to protect the environment and local amenity.
- 3.2.4 Policy SG10 of the Selby District Council Local Plan Publication Version (2022) (Ref. 32) requires appropriate weight and consideration to be given

to living conditions and amenity including due to noise, odour, dust, vibration, visual intrusion, shadowing or flicker.

4. Ground Conditions

4.1 National Legislation, Policy and Guidance

Legislation

- 4.1.1 Regulation 5(2)(c) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 1) requires that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the likely significant direct and indirect effects of the Scheme on land and soil.
- 4.1.2 There are six key legislative drivers for dealing with risks to human health and the environment from ground conditions, namely:
 - a. Part 2A of the Environmental Protection Act (EPA) 1990 (the Contaminated Land Regime) (Ref. 36);
 - b. The Water Resources Act 1991 (Ref. 37);
 - c. Water Act 2003 (Ref. 38);
 - d. Building Act 1984 (Ref. 39);
 - e. The Building Regulations & c (Amendment) Regulations 2015 (Ref. 40); and
 - f. Planning Act 2008 (Ref. 41).
- 4.1.3 In the UK, Part 2A of the EPA (Ref. 36), as introduced by Section 57 of the Environment Act 1995 (Ref. 11) provides the legislative framework within which site data is to be assessed. Under Part 2A, sites are identified as 'contaminated land' if they are: causing harm to human health; if there is a significant possibility of causing significant harm to human health; if the site is causing significant harm, or there is a significant possibility that it causes harm to non-human receptors; or there is pollution of controlled waters (i.e. both surface and groundwaters).
- 4.1.4 The Water Act 2003 (Ref. 38) introduced a revision to the wording of the EPA, which requires that if a site is causing or could cause significant pollution of controlled waters it may be determined as contaminated land. Once a site is determined to be "contaminated land" then remediation is required to render significant pollutant linkages insignificant (i.e. the source-pathway-receptor relationships that are associated with significant harm to human health and/or significant pollution of controlled waters), subject to a test of reasonableness.
- 4.1.5 The Water Resources Act 1991 (Ref. 37) provides statutory protection for controlled waters (streams, rivers, canals, marine environment and groundwater) and makes it an offence to discharge to controlled waters without the permission or consent of the regulators of these areas.

- 4.1.6 The Building Act 1984 (Ref. 39) and the Building Regulations &c (Amendment) Regulations 2015 (Ref. 40) are the two key legislative drivers when considering structural and design aspects of a development in terms of geotechnical properties of the ground. The Building Act 1984 requires that buildings are constructed so that ground movement caused by swelling, shrinkage, freezing, landslip or subsidence of the sub-soils will not impair the stability of any part of the building.
- 4.1.7 Other legislation of relevance to this topic includes:
 - a. Environmental Permitting (England and Wales) Regulations 2016 (Ref. 42) (as amended);
 - b. Hazardous Waste (England and Wales) Regulations 2005 (Ref. 43);
 - c. Contaminated Land (England) Regulations 2006 (Ref. 44);
 - d. Environmental Damage (Prevention and Remediation) Regulations 2015 (Ref. 45); and
 - e. Anti-Pollution Works Regulations 1999 (Ref. 46).

Policy

4.1.8 The relevant NPS requirements, together with an indication of where in the ES the information provided to address these requirements in relation to ground conditions, are provided in **Table 10.**

Table 10. Relevant NPS requirements for the ground conditions assessment

Relevant NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
NPS EN-1		
Paragraph 4.10.1	Issues relating to discharges or emissions from a proposed project which affect air quality, water quality, land quality and the marine environment, or which include noise and vibration	Appendix 16-2, ES Volume 2 [EN010143/APP/6.2].
	may be subject to separate regulation under the pollution control framework or other consenting and licensing regimes.	A summary of the assessment is provided in Section 16.4 of Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].
Paragraph 4.10.2	The planning and pollution control systems are separate but complementary. The planning system controls the development and use of land in the public interest. It plays a key role in protecting and improving the natural environment, public health and safety, and amenity, for example by attaching conditions to allow developments which would otherwise not be environmentally acceptable to proceed, and preventing harmful development which cannot be made acceptable even through conditions. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the releases of substances to the environment from different sources to the lowest practicable level. It also ensures that ambient air and water quality meet standards that guard against impacts to the environment or human health.	This is considered in the Phase 1 PRA Report provided as Appendix 16-2, ES Volume 2 [EN010134/APP/6.1]. A summary of the assessment is provided in Section 16.4 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].
Paragraph 4.10.3	In considering an application for development consent, the IPC should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use,	This is considered in the Phase 1 PRA Report provided as Appendix 16-2, ES Volume 2 [EN010143/APP/6.2].

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

rather than the control of processes, emissions or discharges themselves. The [Secretary of State] should work Chapter 16: Other Environmental Topics, ES Volume 1 on the assumption that the relevant pollution control regime and other environmental regulatory regimes, including those on land drainage, water abstraction and biodiversity, will be properly applied and enforced by the relevant regulator. It should act to complement but not seek to duplicate them.

A summary of the assessment is provided in Section 16.4 of [EN010143/APP/6.1].

Paragraph 4.10.4

Applicants should consult the Marine Management Organisation (MMO) on nationally significant projects which would affect, or would be likely to affect, any relevant marine areas as defined in the Planning Act 2008 (as amended by s.23 of the Marine and Coastal Access Act 2009). The IPC consent may include a deemed marine licence and the MMO will advise on what conditions should apply to the deemed marine licence. The IPC and MMO should cooperate closely to ensure that energy NSIPs are licensed in accordance with environmental legislation, including European directives.

The Grid Connection Corridor crosses the River Ouse at a point where it is tidal and therefore falls under the remit of the MMO. A deemed Marine License for these works is sought as part of the DCO Application.

The crossing of the River Ouse will be via horizontal directional drill (HDD) with no direct impacts to the River, or its banks. It is therefore not anticipated that the Scheme would have any effects on the marine environment.

Paragraph 4.10.5

Many projects covered by this NPS will be subject to the Environmental Permitting (EP) regime, which also incorporates operational waste management requirements for certain activities. When a developer applies for an EP, the relevant regulator (usually EA but sometimes the local authority) requires that the application demonstrates that processes are in place to meet all relevant EP requirements. In considering the impacts of the project, the IPC may wish to consult the regulator on any management plans that would be included in an EP application.

Environmental Permits will be sought prior to construction where relevant.

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

Paragraph 4.10.6

Applicants are advised to make early contact with relevant regulators, including EA and the MMO, to discuss their requirements for environmental permits and other consents. This will help ensure that applications take account of all relevant environmental considerations and that the relevant regulators are able to provide timely advice and assurance to the IPC. Wherever possible, applicants are encouraged to submit applications for Environmental Permits and other necessary consents at the same time as applying to the IPC for development consent.

The Environment Agency have been consulted throughout the pre-application stage as detailed in the relevant technical chapters. The Applicant has been in contact with the in regard to the Marine Licence. A deemed Marine License is sought as part of the DCO Application.

Paragraph 4.10.7

The [Secretary of State] should be satisfied that development consent can be granted taking full account of environmental impacts. Working in close cooperation with EA and/or the pollution control authority, and other relevant bodies, such as the MMO, Natural England, the Countryside Council for Wales, Drainage Boards, and water and sewerage undertakers, the [Secretary of State] should be satisfied, before consenting any potentially polluting developments, that:

- a. the relevant pollution control authority is satisfied that potential releases can be adequately regulated under the pollution control framework; and
- b. the effects of existing sources of pollution in and around the site are not such that the cumulative effects of pollution when the proposed development is added would make that development unacceptable, particularly in relation to statutory environmental quality limits.

Effects on ground conditions and potential contamination is considered in the **Phase 1 PRA Report** provided as **Appendix 16-2**, **ES Volume 2 [EN010143/APP/6.2]**.

A summary of the assessment is provided in Section 16.4 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

Paragraph 5.10.8

Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination.

Effects on ground conditions and potential contamination is considered in the **Phase 1 PRA Report** provided as **Appendix 16-2, ES Volume 2 [EN010143/APP/6.2].**A summary of the assessment is provided in Section 16.4 or

A summary of the assessment is provided in Section 16.4 of Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].

Draft National Policy Statements

4.1.9 Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, **Table 11** indicates where the information to address these requirements is provided within the ES. From review of the draft documents, it is considered that the draft provisions do not change the assessment approach.

Table 11. Relevant Draft NPS requirements for the Ground Conditions assessment

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Draft NPS EN-1		
Paragraph 5.11.8	The ES (see Section 4.2) should identify existing and proposed land uses near the project, any effects of replacing an existing development or use of the site with the proposed project or preventing a development or use on a neighbouring site from continuing. Applicants should also assess any effects of precluding a new development or use proposed in the development plan. The assessment should be proportionate to the scale of the preferred scheme and its likely impacts on such receptors. For developments on previously developed land, the applicant should ensure that they have considered the risk posed by land contamination and how it is proposed to address this.	
Paragraph 5.11.17	Applicants should ensure that a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination	Effects on ground conditions and risks arising from land instability and contamination are considered in the Phase 1 PRA Report provided as Appendix 16-2, ES Volume 2 [EN010143/APP/6.2]. A summary of the assessment is provided in Section 16.4 of Chapter 16: Other Environmental Topics ES Volume 1 [EN010143/APP/6.1].

National Planning Policy Framework (NPPF)

- 4.1.10 The NPPF (Ref. 26) sets out the Government's planning policies for England and how these should be applied.
- 4.1.11 The relevant NPPF paragraphs, together with an indication of where in the ES chapter the information is provided to address these requirements, are provided in **Table 12**.

Table 12. Relevant NPPF requirements for the ground conditions assessment

Relevant NPPF paragraph reference	Requirement of the NPPF	Location of information provided to address this
Paragraph 174	Planning policies and decisions should contribute to and enhance the natural and local environment by: a. protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b. preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and c. remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.	16-2, ES Volume 2 [EN010143/APP/6.2].
Paragraph 183	Planning policies and decisions should ensure that: a. a site is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation); b. after remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and	Phase 1 PRA Report provided as Appendix 16-2, ES Volume 2 [EN010143/APP/6.2]

Relevant NPPF paragraph reference

Requirement of the NPPF

Location of information provided to address this

c. adequate site investigation information, prepared by a competent person, is available to inform these assessments.

4.2 Guidance

- 4.2.1 The assessment has also considered the following relevant policy, standards and guidance:
 - a. Environment Agency, (2009); Updated technical Background to the CLEA model; Science Report: SC050021/SR3 (Contaminated land exposure assessment (CLEA) spreadsheet based tool) (Ref. 47);
 - b. Environment Agency Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination (Ref. 48);
 - c. Human Health Toxicological Assessment of Contaminants in Soil, Science Report SC050021/SR2 (Ref. 49);
 - d. Environment Agency, 2020; Land Contamination: Risk Management (Ref. 50);
 - e. Environment Agency, 2010; Guiding Principles for Land Contamination (GPLC) 1, 2 and 3 (Ref. 51);
 - f. Construction Industry Research and Information Association (CIRIA) Guidance C532, 'Control of Water Pollution from Construction Sites' (Ref. 52);
 - g. The Chartered Institute of Environmental Health (CIEH) Local Authority Handbooks (Ref. 53);
 - h. British Standard (BS) 8485:2015 Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings (Ref. 54); and
 - i. Construction Industry Research and Information Association (CIRIA) Guidance C665, 'Assessing Risks Posed by Hazardous Ground Gases to Buildings' (Ref. 55).

Relevant policies

4.3 Local Policy

Relevant Document

4.3.1 The following local policy is relevant to the assessment of ground conditions effects of the Scheme.

Table 13. Relevant local legislation, policy for ground conditions

East Riding Local Plan 2016 (Ref. 28)	Policy EC5: Supporting the energy sector Policy ENV 6: Managing environmental hazards
East Riding Local Plan Update 2020 – 2039 (Ref. 29)	Policy EC5: Supporting the renewable and low carbon energy sector Policy ENV 6: Managing environmental hazards
Selby District Local Plan (2005) (Ref. 30)	Policy ENV2: Groundwater Protection

Selby District Core Strategy Local Plan (2013) (Ref. 31)	Policy SP15 Sustainable Development and Climate Change
Selby District Council Local Plan Publication Version (2022) (Ref. 32)	Policy NE8 - Pollution and Contaminated Land

- 4.3.2 Policy EC5 of the East Riding Local Plan (Ref. 28) and East Riding Local Plan Update (Ref. 29) set out that development must consider the effects on the land, including land stability, contamination and soil resources.
- 4.3.3 Policy ENV6 of the Adopted East Riding Local Plan (Ref. 28) and East Riding Local Plan Update (Ref. 29) require development to manage the risk of ground water pollution by avoiding development that has the potential to increase the risk of groundwater pollution and cleaning up contaminated land.
- 4.3.4 Policy ENV2 of the Selby District Local Plan (Ref. 30) sets out that proposals for development which would give rise to, or would be affected by, unacceptable levels of noise, nuisance, contamination or other environmental pollution including groundwater pollution will not be permitted unless satisfactory remedial or preventative measures are incorporated as an integral element in the scheme.
- 4.3.5 Policy SP15 of the Selby District Core Strategy (Ref. 31) sets out that the council will ensure development proposals respond to land characteristics to minimise risks of erosion, subsidence and instability, and to exploit opportunities for reclamation and reinstatement of contaminated land.
- 4.3.6 Policy NE8 of the Selby District Council Local Plan Publication Version (2022) (Ref. 32) requires development which could present noise pollution, light pollution, groundwater pollution contamination of land or water and other environmental pollution or unstable land will not be permitted unless satisfactory remedial or preventative measures are incorporated.

5. Major Accidents of Disasters

5.1 National Legislation, Policy and Guidance

Legislation

5.1.1 Regulation 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 1) requires that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the likely significant direct and indirect effects of the Scheme on the population and human health. Regulation 5(4) provides that consideration should also be given to the vulnerability of the proposed development to major accidents or disasters.

- 5.1.2 The EIA Directive and domestic Infrastructure Planning (Environmental Impact Assessment) Regulations (Ref. 1) cite two specific directives as examples of risk assessments to be considered within EIA. These are the Directive 2012/18/EU of the European Parliament and of the European Council (which deals with major accident hazard registered sites) (Ref. 56) and the Council Directive 2009/71/Euratom (which deals with nuclear sites) (Ref. 57). Neither of these Directives is relevant to the Scheme.
- 5.1.3 Legislation in force to ensure the protection of workers in the workplace, thus minimising any risk from major accidents or disasters to a reasonable level, includes:
 - a. Health and Safety at Work etc. Act 1974 (Ref. 58);
 - b. The Management of Health and Safety at Work Regulations 1999 (Ref. 59);
 - c. The Workplace (Health, Safety and Welfare) Regulations 1992 (Ref. 60); and
 - d. Construction (Design and Management) (CDM) 2015 Regulations (Ref. 61).

Policy

5.1.4 The relevant NPS requirements, together with an indication of where in the ES chapter the information provided to address these requirements, are provided in **Table 14**. NPS EN-3 and EN-5 do not contain requirements relevant to the Major Accidents and Disasters for this Scheme. Therefore, **Table 14** only lists relevant NPS requirements from NPS EN-1.

Table 14. Relevant NPS requirements for Major Accidents and Disasters

Relevant NPS paragraph reference

Requirement of the NPS

Location of information provided to address this

NPS EN-1

Paragraph 4.11.4

Applicants seeking to develop infrastructure subject to the COMAH regulations. The Scheme is not subject to the should make early contact with the Competent Authority. If a safety report is required it is important to discuss with the Competent Authority the type of information that should be provided at the design and development stage, and what form this should take. This will enable the Competent Authority to review as much information as possible before construction begins, in order to assess whether the inherent features of the design are sufficient to prevent, control and mitigate major accidents. The Secretary of State should be satisfied that an assessment has been done where required and that the Competent Authority has assessed that it meets the safety objectives described above.

COMAH Regulations.

Draft National Policy Statements

5.1.5 Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, **Table 15** indicates where the information to address these requirements is provided within the ES. From review of the draft documents, it is considered that the draft provisions do not change the assessment approach.

Table 15. Relevant Draft NPS requirements for the assessment of major accidents and disasters

Relevant Draft NPS paragraph reference	S Requirement of the NPS	Location of information provided to address this
Draft NPS EN-1		
Paragraph 4.12.5	Applicants should consult with the HSE on matters relating to safety	The Applicant team has consulted with the HSE.
Paragraph 4.12.6	Applicants seeking to develop infrastructure subject to the COMAH regulations should make early contact with the Competent Authority.	The Scheme is not subject to the COMAH regulations.
Paragraph 4.12.7	If a safety report is required it is important to discuss with the Competent Authority the type of information that should be provided at the design and development stage, and what form this should take. This will enable the Competent Authority to review as much information as possible before construction begins, in order to assess whether the inherent features of the design are sufficient to prevent, control and mitigate major accidents	The Scheme is not subject to the COMAH regulations and a safety report is not required.
Paragraph 4.12.8	The Secretary of State should be satisfied that a safety assessment has been done, where required, and that the Competent Authority has assessed that it meets the safety objectives described above.	The Scheme is not subject to the COMAH regulations and a safety report is not required.

National Planning Policy Framework

- 5.1.6 Although not directly relevant to energy developments, the NPPF (Ref. 26) does refer, at paragraph 97, to the fact that:
- 5.1.7 "planning policies and decisions should promote public safety and take into account wider security and defence requirements by:
 - a. anticipating and addressing possible malicious threats and natural hazards, especially in locations where large numbers of people are expected to congregate. Policies for relevant areas (such as town centre and regeneration frameworks), and the layout and design of developments, should be informed by the most up-to-date information available from the police and other agencies about the nature of potential threats and their implications. This includes appropriate and proportionate steps that can be taken to reduce vulnerability, increase resilience and ensure public safety and security; and
 - b. recognising and supporting development required for operational defence and security purposes, and ensuring that operational sites are not affected adversely by the impact of other development proposed in the area."
- 5.1.8 The assessment presented in section 16.5 of **Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]** considers natural disasters, noting that the Scheme will not result in the congregation of large numbers of people.

5.2 Guidance

5.2.1 Guidance on the methodology for assessing major accidents and disasters in EIA are provided by the Institute of Environmental Management Assessments (IEMA) in their 'Primer', which is intended to introduce the concept of the topic and to offer an initial appreciation on methodology that could be adopted (Ref. 62). This guidance has been taken into account in the assessment of major accidents or disasters presented in section 16.5 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

6. Telecommunications, Television Reception and Utilities

6.1.1 There is no legislation, policy or guidance considered relevant to the assessment of telecommunications, television reception and utilities insofar as these matters relate to the Scheme.

7. Electric and Magnetic Fields

7.1 National Legislation, Policy and Guidance

Legislation

- 7.1.1 Regulation 5(2)(a) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 1) requires that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the likely significant direct and indirect effects of the Scheme on the population and health.
- 7.1.2 The Control of Electromagnetic Fields at Work Regulations 2016 (Ref. 63) sets out the duties of employers in relation to controlling the risks to employees for, Electric and Magnetic Fields (EMF). This includes a requirement to assess employees' potential exposure to EMFs with reference to action levels (ALs) and exposure limit values (ELVs).

Policy

- 7.1.3 The relevant NPS requirements, together with an indication of where in the ES chapter the information provided to address these requirements, are provided in **Table 16**. NPS EN-1 and EN-3 do not contain requirements relevant to the assessment of electric and magnetic fields for this Scheme. Therefore, **Table 16** only lists relevant NPS requirements from NPS EN-5.
- 7.1.4 As set out in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**, it has been confirmed that there will be no overhead electricity cables used or constructed as part of the Scheme and therefore policies in relation to electric and magnetic fields from overhead lines have not been included.

Table 16. Relevant NPS requirements for the assessment of electric and magnetic fields

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

NPS EN-5

Paragraph 2.10.12

Undergrounding of a line would reduce the level of EMFs experienced, but high magnetic field levels may still occur immediately above the cable. It is not the Government's policy that power lines should be undergrounded solely for the purpose of reducing exposure to EMFs. Although there may be circumstances where the costs of undergrounding are justified for a particular development, this is unlikely to be on the basis of EMF exposure alone, for which there are likely to be more cost-efficient mitigation measures.

As set out in **Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**, it has been confirmed that there are no overhead electricity cables used or constructed as part of the Scheme. However, this is not a consequence of a need to reduce exposure to EMFs.

Paragraph 2.10.13

In order to avoid unacceptable adverse impacts of EMFs from electricity network infrastructure on aviation, the IPC should take account of statutory technical safeguarding zones defined in accordance with Planning Circular 01/0327: Safeguarding Aerodromes, Technical Sites and Military Explosive Storage Areas or any successor when considering applications. More detail on this issue can be found in Section 5.4 of EN-1. Where a statutory consultee on the safeguarding of technical facilities identifies a risk that the EMF effect of electricity network infrastructure would compromise the effective and safe operation of such facilities, the potential impact and siting and design alternatives will need to have been fully considered as part of the application.

As stated in Section 16.8 of Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1], although the Scheme is close to Breighton Airfield, this is not listed in Annex 3 of the planning circular: Officially safeguarded civil aerodromes.

None of the elements of the Scheme will be 91.4 metres or more above ground level (**Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1]**). Therefore, the Scheme does not classify as an air navigation obstacle.

Relevant NPS Requirement of the NPS paragraph reference

Location of information provided to address this

Paragraph 2.10.15

- height, position, insulation and protection (electrical or mechanical as appropriate) measures subject to ensuring compliance with the Electricity Safety, Quality and Continuity Regulations 2002;
- is introduced wherever possible and practicable in accordance with the Code of Practice to minimise effects of EMFs: and
- any new advice emerging from the Department of Health relating to Government policy for EMF exposure guidelines.

However, where it can be shown that the line will comply with the current public exposure guidelines and the policy on phasing, no further mitigation should be necessary

The applicant should have considered the following factors: Compliance with the Electricity Safety, Quality and Continuity Regulations 2002 will be ensured at detailed design.

As set out in Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1], it has been confirmed that there are no • that optimal phasing of high voltage overhead power lines overhead electricity cables used or constructed as part of the Scheme.

> Potential health impacts arising from EMF have been scoped out of the preliminary assessment presented in Chapter 14: Human Health, ES Volume 1 [EN010143/APP/6.1] as the impacts of EMF are considered to be not significant. However, any new advice will be reviewed.

Paragraph 2.10.16

Where EMF exposure is within the relevant public exposure As set out in Chapter 2: The Scheme, ES Volume 1 guidelines, re-routeing a proposed overhead line purely on the basis of EMF exposure, or undergrounding a line solely to further reduce the level of EMF exposure are unlikely to be proportionate mitigation measures.

[EN010143/APP/6.1], it has been confirmed that there are no overhead electricity cables used or constructed as part of the Scheme. This measure is not the result of EMF mitigation requirements.

Draft National Policy Statements

7.1.5 Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, **Table 17** indicates where the information to address these requirements is provided within the ES. From review of the draft documents, it is considered that the draft provisions do not change the assessment approach

Table 17. Relevant Draft NPS requirements for the assessment of electric and magnetic fields

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
Draft NPS EN-5		
Paragraph 2.10.11	 The applicant should consider the following factors: a. height, position, insulation and protection (electrical or mechanical as appropriate) measures subject to ensuring compliance with the Electricity Safety, Quality and Continuity Regulations 2002; b. that optimal phasing of high voltage overhead power lines is introduced wherever possible and practicable in accordance with the Code of Practice to minimise EMFs; and c. any new advice emerging from the Department of Health and Social Care relating to government policy for EMF exposure guidelines 	The Scheme design will ensure compliance with Electricity Safety, Quality and Continuity Regulations 2002. As set out in Chapter 2: The Scheme, ES Volume 1 [EN010143/APP/6.1], it has been confirmed that there are no overhead electricity cables used or constructed as part of the Scheme. Relevant emerging policy is considered within the assessment at ES.
Paragraph 2.11.12	Undergrounding of a line would reduce the level of EMFs experienced, but high magnetic field levels may still occur immediately above the cable. It is the government's policy that power lines should not be undergrounded solely for the purpose of reducing exposure to EMFs	As set out in Chapter 2: The Scheme ES Volume 1 [EN010143/APP/6.1], all cables have been undergrounded to reduce the visual impact at the operational phase. Section 16.8 of Chapter 16, ES Volume 1 [EN010143/APP/6.1], provides and assessment of the potential impacts of electric and electromagnetic fields from the underground cables.
Paragraph 2.11.13	In order to avoid unacceptable adverse impacts of EMFs from electricity network infrastructure on aviation, the Secretary of State will take account of statutory technical safeguarding zones defined in accordance with Planning Circular 01/0322, or any	The potential impacts of electric and electromagnetic fields generated by the Scheme on aviation receptors and statutory technical aviation safeguarding zones has

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	successor, when considering recommendations for DCO applications. More detail on this issue can be found in Section 5.5 of EN-1.	been considered in Section 16.8 of Chapter 16, ES Volume 1 [EN010143/APP/6.1].
Paragraph 2.11.14	Where a statutory consultee on the safeguarding of technical facilities identifies a risk that the EMF effect of electricity network infrastructure would compromise the effective and safe operation of such facilities, the potential impact and siting and design alternatives will need to have been fully considered as part of the application	The potential impacts of electric and electromagnetic fields generated by the Scheme on aviation receptors and statutory technical aviation safeguarding zones has been considered in Section 16.8 of Chapter 16, ES Volume 1 [EN010143/APP/6.1]. The levels of electric and electromagnetic fields generated by the Scheme and experienced by these receptors is considered to be nil or negligible and therefore there is no risk.

National Planning Policy Framework (NPPF)

7.1.6 There are no relevant NPPF paragraphs for Electric and Magnetic Fields.

7.2 Guidance

- 7.2.1 The assessment, contained within **Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]**, has also considered:
 - a. DECC (2012) Power Lines: Demonstrating compliance with EMF public exposure guidelines A voluntary Code of Practice (Ref. 64), which sets out guidance on situations where it is necessary to demonstrate compliance with the exposure guidelines that apply to public exposure to power frequency electric and magnetic fields (EMFs) in the UK;
 - b. National Grid (2015). Undergrounding high voltage electricity transmission lines: The technical issues (Ref. 65), which provides information about the technical merits and challenges associated with undergrounding high voltage electricity lines, compared with installing overhead lines:
 - Energy Networks Association (2017). Electric and Magnetic Fields,
 (Ref. 66) which sets out facts and information relating to Electric and Magnetic Fields;
 - d. International Commission on Non-Ionizing Radiation Protection (ICNIRP) (1998) (Ref. 67). Guidelines for limiting exposure to time-varying electric, magnetic and electromagnetic fields (up to 300 GHz), which provide reference levels for exposure to magnetic fields; and
 - e. Department of Transport (2002). The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction (updated 2016) (Ref. 68). This document provides details of the system of safeguarding, lists the civil aerodromes which are officially safeguarded and lists the local planning authority areas containing civil en-route technical sites for which separate official safeguarding maps have been issued.

7.3 Local Policy and Guidance

Policy

7.3.1 The following local policy is relevant to the assessment of electric and magnetic fields effects associated with the Scheme.

Table 18. Relevant local legislation, policy and guidance for air quality

Relevant Document	Relevant policies
East Riding Local Plan 2012-2029 (2016) (Ref. 28)	Policy EC5: Supporting the energy sector
East Riding Local Plan Update 2020 – 2039 (2022) (Ref. 29)	Policy EC5: Supporting the renewable and low carbon energy sector

Relevant Document

Relevant policies

7.3.2 Policy EC5 (Supporting the energy sector) of the East Riding Local Plan (2016) (Ref. 28) and Local Plan Update (2022) (Ref. 29) states that the effects of development on electromagnetic production and interference, and aeronautical impacts such as on radar systems, should be assessed.

8. Materials and Waste

8.1 National Legislation, Policy and Guidance

8.1.1 Regulation 5(2)(d) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (Ref. 1) requires that the EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the likely significant direct and indirect effects of the Scheme on material assets.

Legislation

Waste Framework Directive (WFD) (Ref. 69)

8.1.2 The WFD establishes the wider regulatory context for waste management across Europe. In addition to defining waste, it also introduces the concept of the waste hierarchy and establishes landfill diversion targets for Member States. The requirements of the WFD are transposed into applicable national law through the Waste (England and Wales) Regulations 2011 (Ref. 69) as amended and The Waste (Miscellaneous Amendments) (EU Exit) Regulations 2019 (Ref. 70).

The Waste (England and Wales) Regulations 2011 (Ref. 69)

8.1.3 These regulations transpose the requirements of the Waste Framework Directive in England and Wales and requires the Secretary of State (SoS) to establish waste prevention programmes and waste management plans that apply the waste hierarchy (as defined in the Waste Framework Directive). The waste hierarchy prioritises waste prevention, followed by preparing for reuse, recycling, recovery and finally disposal to the management of waste. The Regulations require businesses to apply the waste hierarchy when managing waste, and also require that measures are taken to ensure that, by the year 2020, at least 70% by weight of non-hazardous Construction and Demolition (C&D) waste is subjected to material recovery. No further updates to the 2020 target have been published.

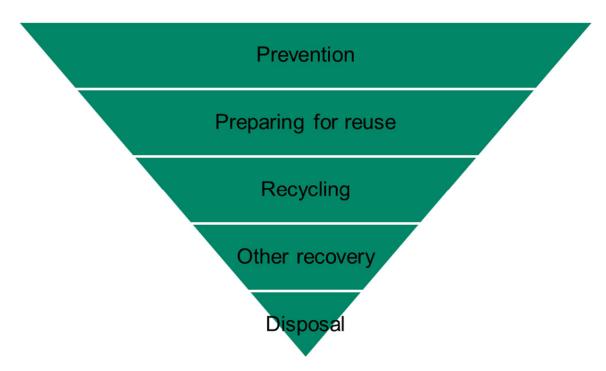


Plate 1. Waste Hierarchy (Ref. 83)

The Environment Protection Act 1990 (Ref. 71)

- 8.1.4 The duty of care for waste management is set out under section 34 of the Environmental Protection Act 1990 and the Waste (England and Wales) Regulations 2011 (as amended). It requires anyone who produces, imports, keeps, stores, transports, treats or disposes of waste to take all reasonable steps to ensure that waste is managed properly and places a duty on producers and holders of waste to:
 - a. Prevent illegal disposal, treatment or storage of waste;
 - b. Handle their waste safely;
 - c. Know whether the waste is hazardous or non-hazardous;
 - d. Store waste securely in a manner that prevents release of the waste;
 - e. Provide an accurate written description of the waste in order to facilitate the compliance of others with the Duty and avoidance of the offences under Section 33 of the Environmental Protection Act 1990: via a compulsory system of Controlled Waste Transfer Notes (WTNs) which controls the transfer of waste between parties; and
 - f. Ensure anyone dealing with their waste has the necessary authorisation.

The Environmental Permitting (England and Wales) Regulations 2016 (Ref. 72)

8.1.5 The Regulations require sites where waste is processed, treated or disposed of to hold a valid Environmental Permit issued by the Environment Agency (EA). The Regulations also include a schedule of activities that are exempt from the requirements of permitting. However, to comply with the

Regulations, an exempt activity must generally be registered with the EA before commencing.

The Hazardous Waste Regulations (England and Wales) 2005 (amended in 2016) (Ref. 73)

- 8.1.6 These regulations place a requirement on producer of the waste to:
 - a. Classify the waste;
 - b. Separate hazardous waste from other general waste streams;
 - Use authorised businesses to collect, recycle or dispose of your waste;
 and
 - d. Complete relevant hazardous waste consignment note.

The Environment Act 2021 (Ref. 11)

- 8.1.7 The Act makes provision about targets, plans and policies for improving the natural environment; for statements and reports about environmental protection; for the establishment of the Office for Environmental Protection; about waste and resource efficiency; about air quality; for the recall of products that fail to meet environmental standards; about water; about nature and biodiversity; for conservation covenants; about the regulation of chemicals; and for connected purposes. The Act will deliver:
 - a. An extension of producer responsibility to make producers pay for 100% of the cost of disposal of products, starting with plastic packaging.
 - b. A Deposit Return Scheme for single use drinks containers.
 - c. Charges for single use plastics.
 - d. Greater consistency in recycling collections in England.
 - e. Electronic waste tracking to monitor waste movements and tackle flytipping.
 - f. Further tackling of waste crime.
 - g. The power to introduce new resource efficiency information (labelling on the recyclability and durability of products).
 - h. The regulation of the shipment of hazardous waste.
 - i. A ban or export restriction of waste to non-OECD countries.

National Planning Policy for Waste (Ref. 74)

- 8.1.8 The National Planning Policy for Waste sets out detailed waste planning policies to be applied in conjunction with the NPPF. It states: "when determining planning applications for non-waste development, local planning authorities should, to the extent appropriate to their responsibilities, ensure that:
 - a. The likely impact of proposed, non-waste related development on existing waste management facilities, and on sites and areas allocated for waste management, is acceptable and does not prejudice the

- implementation of the waste hierarchy and/or the efficient operation of such facilities:
- b. New, non-waste development makes sufficient provision for waste management and promotes good design to secure the integration of waste management facilities with the rest of the development; and
- c. The handling of waste arising from the construction and operation of development maximises reuse/recovery opportunities, and minimises off-site disposal".

The Waste Management Plan for England 2021 (Ref. 75)

8.1.9 Provides an overview of waste management in England and reiterates the requirement for all waste producers and waste management providers to implement the waste hierarchy. It also highlights the need for waste to be managed using the proximity principle and confirms England's commitment to recovering at least 70% by weight of non-hazardous C&D waste by 2020 (excluding soils and stones). Recovery is assumed in the context of this policy to include reuse, recycling and incineration with energy recovery.

A Green Future: Our 25 Year Plan to Improve the Environment 2018 (Ref. 13)

- 8.1.10 The plan "sets out goals for improving the environment within a generation and leaving it in a better state than we found it". It details how the government will work with communities and businesses to do this. The following policies are relevant:
 - Make sure that resources are used more efficiently and kept in use for longer to minimise waste and reduce its environmental impacts by promoting reuse, remanufacturing and recycling.
 - b. Work towards eliminating all avoidable waste by 2050 and all avoidable plastic waste by end of 2042.
 - c. Reducing food supply chain emissions and waste.
 - d. Reducing litter and littering.
 - e. Improving management of residual waste.

Environmental Improvement Plan 2023 (Ref. 14)

- 8.1.11 The 25 Year Environment Plan set out the Government's 25-year plan to improve the environment within a generation. It defined 10 goals and provided a framework and vision for how these were to be achieved. The goals included: maximise our resources, minimise our waste. In accordance with the Environment Act 2021 the 25-year plan is to be reviewed and updated every five years; the Environmental Improvement Plan 2023 is the first of these updates.
- 8.1.12 The Environmental Improvement Plan 2023 reinforces the intent of the 25 Year Environment Plan and sets out the progress made against all 10 goals, the specific targets and commitments made in relation to each goal, and the Government's plan to continue to deliver these targets and the overarching goals. The 25 Year Environment Plan and the Environmental Improvement Plan 2023 highlight the Government's support for the reduction in the UK's

carbon footprint; protection and enhancement of the natural environment; and ensuring land is managed with environmental gains.

Our Waste, Our Resources, A Strategy for England 2018 (Ref. 76)

- 8.1.13 The Strategy will help the government to meet the commitments outlined in the 25 Year Plan and "sets out how we will preserve our stock of material resources by minimising waste, promoting resource efficiency and moving towards a circular economy. At the same time we will minimise the damage caused to our natural environment by reducing and managing waste safely and carefully, and by tackling waste crime." The strategy combines actions to be taken now and commitments for the coming years. Key targets and milestones and targets, which could be relevant to the Project, include:
 - a. Roll out of a deposit return scheme (subject to consultation) 2023.
 - Legislation for mandatory separate food waste collections (subject to consultation) 2023;
 - c. 75% recycling rate for packaging (subject to consultation) 2023;
 - d. 65% recycling rate for municipal solid waste 2035.
 - e. Municipal waste to landfill 10% or less 2035.

National Policy

8.1.14 The relevant NPS requirements, together with an indication of where in the ES chapter the information provided to address these requirements, are provided in **Table 19.** NPS EN-3 and EN-5 do not contain specific requirements relevant to the materials and waste assessment for this Scheme. Therefore, **Table 19** only lists relevant NPS requirements from NPS EN-1.

Table 19. Relevant NPS requirements for the materials and waste assessment

Relevant NPS paragraph reference Requirement of the NPS

Section 5.14: Waste Management

Introduction

5.14.1 Government policy on hazardous and non-hazardous waste is intended to protect human health and the environment by producing less waste and by using it as a resource wherever possible. Where this is not possible, waste management regulation ensures that waste is disposed of in a way that is least damaging to the environment and to human health.

5.14.2 Sustainable waste management is implemented through the "waste hierarchy", which sets out the priorities that must be applied when managing waste:

- prevention;
- preparing for reuse;
- recycling;
- other recovery, including energy recovery; and
- disposal.

5.14.3 Disposal of waste should only be considered where other waste management options are not available or where it is the best overall environmental outcome.

Location of information provided to address this

Waste management is considered in Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]. A Site Waste Management Plan (SWMP), Appendix 16-4, ES Volume 2 [EN010143/APP/6.1], will be produced prior to construction. Further details of materials and waste management will also be provided in a Framework Site Waste Management Plan which will accompany the Environmental Statement.

An assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation is considered in **Chapter 16**: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1].

Relevant NPS paragraph reference

Requirement of the NPS

Location of information provided to address this

5.14.4 All large infrastructure projects are likely to generate hazardous and non-hazardous waste. The EA's Environmental Permitting (EP) regime incorporates operational waste management requirements for certain activities. When an applicant applies to the EA for an Environmental Permit, the EA will require the application to demonstrate that processes are in place to meet all relevant EP requirements.

5.14.5 Specific considerations with regard to radioactive waste are set out in section 2.11 and Annex B of EN-6. This section will apply to non-radioactive waste for nuclear infrastructure as for other energy infrastructure.

Applicant's assessment

5.14.6 The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a Site Waste Management Plan. The arrangements described and Management Plan should include information on the proposed waste recovery and disposal system for all waste

Relevant NPS paragraph reference

Requirement of the NPS

Location of information provided to address this

generated by the development, and an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation. The applicant should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that this is the best overall environmental outcome.

[Secretary of State] decision making

5.14.7 The [Secretary of State] should consider the extent to which the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the proposed development. It should be satisfied that: any such waste will be properly managed, both on-site and off-site; the waste from the proposed facility can be

dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of

Relevant NPS paragraph reference

Requirement of the NPS

Location of information provided to address this

existing waste management facilities to deal with other waste arisings in the area; and adequate steps have been taken to minimise the volume of waste arisings, and of the volume of waste arisings sent to disposal, except where that is the best overall environmental outcome.

5.14.8 Where necessary, the [Secretary of State] should use requirements or obligations to ensure that appropriate measures for waste management are applied. The [Secretary of State] may wish to include a condition on revision of waste management plans at reasonable intervals when giving consent.

5.14.9 Where the project will be subject to the EP regime, waste management arrangements during operations will be covered by the permit and the considerations set out in Section 4.10 (Pollution control and other environmental regulatory regimes) will apply.

Draft National Policy Statements

8.1.15 Where the relevant Draft NPSs contain requirements that differ from the requirements of the NPSs, **Table 20** indicates where the information to address these requirements is provided within the ES. From review of the draft documents, it is considered that the draft provisions do not change the assessment approach.

Table 20. Relevant Draft NPS requirements for the materials and waste assessment Relevant Draft NPS paragraph reference Requirement of the NPS

Location of information provided to address this

Draft NPS EN-1

Paragraph 5.11.19

Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.

In the Scoping Response (Appendix 1-2, ES Volume 2 [EN010143/APP/6.2]) the Planning Inspectorate confirmed in ID 3.7.1 that minerals safeguarding assessment may be scoped out subject to 'confirmation that the Minerals Planning Authority (MPA) agree to the suggested approach and that there would not be an LSE on minerals resources'.

Appendix 12-2, ES Volume 2 [EN010143/APP/6.2] contains correspondence with North Yorkshire County Council and East Riding of Yorkshire Council (as the relevant MPAs at the time of correspondence) confirming that impacts to minerals safeguarding can be scoped out of the impact assessment as no LSE will occur.

Paragraph 5.11.28

Where a proposed development has an impact upon a Mineral Safeguarding Area (MSA), the Secretary of State should ensure that appropriate mitigation measures have been put in place to safeguard mineral resources.

In the Scoping Response (Appendix 1-2, ES Volume 2 [EN010143/APP/6.2]) the Planning Inspectorate confirmed in para that minerals safeguarding assessment may be scoped out subject to 'confirmation that the Minerals Planning Authority (MPA) agree to the suggested approach and that there would not be an LSE on minerals resources'.

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
		Appendix 12-2, ES Volume 2 [EN010143/APP/6.2] contains correspondence with North Yorkshire County Council and East Riding of Yorkshire Council (as the relevant MPAs at the time of correspondence) confirming that impacts to minerals safeguarding can be scoped out of the impact assessment as no LSE will occur.
Paragraph 5.15.6	Applicants must demonstrate that development proposals are in line with Defra's policy position on the role of energy from waste in treating municipal waste.	Waste management is considered in Chapter 16: Other Environmental Topics, ES Volume 1 [EN010143/APP/6.1]. A Site Waste Management Plan (SWMP) will be produced prior to construction. Further details of materials and waste management will also be provided in a Framework SWMP Appendix 16-4, ES Volume 2 [EN010143/APP/6.2] which accompanies the ES.
Paragraph 5.15.8	The applicant should set out the arrangements that are proposed for managing any waste produced and prepare a report that sets out the sustainable management of waste and use of resources throughout any relevant demolition, excavation and construction activities	Volume 1 [EN010143/APP/6.1]. An SWMP will be produced prior to construction. Further details of materials and waste management will also be provided in a Framework SWMP Appendix 16-4, ES Volume 2
Paragraph 5.15.9	The arrangements described and a report setting out the sustainable management of waste and use of resources should include	[EN010143/APP/6.2] which will accompany the ES.

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	information on how re-use and recycling will be maximised in addition to the proposed waste recovery and disposal system for all waste generated by the development. They should also include an assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation	An assessment of the impact of the waste arising from development on the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation is considered in section 16.7 of Chapter 16, ES Volume 1 [EN010143/APP/6.1].
Paragraph 5.15.10	The applicant is encouraged to refer to the 'Waste Prevention Programme for England' and 'Towards Zero Waste: Our Waste Strategy for Wales' and should seek to minimise the volume of waste produced and the volume of waste sent for disposal unless it can be demonstrated that this is the best overall environmental outcome.	
Paragraph 5.15.12	The UK is committed to moving towards a more 'circular economy'. Where possible, applicants are encouraged to source materials from recycled or reused sources and use low carbon materials, sustainable sources and local suppliers. Construction best practices should be used to ensure that material is reused or recycled onsite where possible	
Paragraph 5.15.13	Applicants are also encouraged to use construction best practices in relation to	

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	storing materials in an adequate and protected place on site to prevent waste, for example, from damage or vandalism. The use of Building Information Management tools (or similar) to record the materials used in construction can help to reduce waste in future decommissioning of facilities, by identifying materials that can be recycled or reused	
Paragraph 5.15.14	The Secretary of State should consider the extent to which the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the proposed development.	_
Paragraph 5.15.15	 The Secretary of State should be satisfied that: a. any such waste will be properly managed, both on-site and off-site. b. the waste from the proposed facility can be dealt with appropriately by the waste infrastructure which is, or is likely to be, available. Such waste arisings should not have an adverse effect on the capacity of existing waste management facilities to deal with other waste arisings in the area. c. adequate steps have been taken to minimise the volume of waste arisings, 	

Relevant Draft NPS paragraph reference	Requirement of the NPS	Location of information provided to address this
	and of the volume of waste arisings sent to disposal, except where that is the best overall environmental outcome	
Paragraph 5.15.16	Where necessary, the Secretary of State should use requirements or obligations to ensure that appropriate measures for waste management are applied.	
Paragraph 5.15.17	The Secretary of State may wish to include a condition on revision of waste management plans at reasonable intervals when giving consent.	
Paragraph 5.15.19	The Secretary of State should have regard to any potential impacts on the achievement of resource efficiency and waste reduction targets set under the Environment Act 2021 o wider goals set out in the government's Environmental Improvement Plan.	

National Planning Policy Framework

- 8.1.16 The NPPF (Ref. 26) does not contain specific waste policies as these are detailed within the National Planning Policy for Waste (Ref. 77) and Waste Management Plan for England (Ref. 75), however, the overarching policies are relevant to materials and waste.
- 8.1.17 The relevant NPPF paragraphs, together with an indication of where in the ES) the information is provided to address these requirements, are provided in **Table 21.**

Table 21. Relevant NPPF requirements for the material and waste assessment

Relevant NPPF paragraph reference	Requirement of the NPPF	Location of information provided to address this
Section 2. Achieving sustainable development, paragraph 8 c) "to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."	Minimise waste.	Waste management is considered in Chapter 16, ES Volume 1 [EN010143/APP/6.1]. A SWMP, will be produced prior to construction. Further details of materials and waste management will also be provided in a Framework SWMP, Appendix 16-4, ES Volume 2 [EN010143/APP/6.1] which will accompany the ES.
Section 17. Facilitating the sustainable use of minerals, paragraph 210 "so far as practicable, take account of the contribution that substitute or secondary and recycled materials and minerals waste would make to the supply of materials, before considering extraction of primary materials, whilst aiming to source minerals supplies indigenously."	Sustainable use of minerals.	Waste management is considered in Chapter 16 , ES Volume 1 [EN010143/APP/6.1]. A SWMP, will be produced prior to construction. Further details of materials and waste management will also be provided in a Framework SWMP , Appendix 16-4 , ES Volume 2 [EN010143/APP/6.1] which will accompany the ES.

8.2 Guidance

8.2.1 The assessment has also considered the following guidance.

National Planning Policy Guidance (NPPG) for Minerals (Ref. 78) and Waste (Ref. 77)

8.2.2 Published to provide more in-depth guidance to the NPPF. The NPPG aims to make planning guidance more accessible and ensures that the guidance is kept up to date.

IEMA Guide to: Materials and Waste in Environmental Impact Assessment, Guidance for a Proportionate Approach (Ref. 79)

8.2.3 The document offers guidance and recommendations for EIA practitioners and stakeholders concerned with the impacts and effects of materials and waste on the environment. The guidance provides considerations for screening, scoping, consultation, assessment and subsequent reporting and monitoring.

Contaminated Land: Applications in Real Environments (CL:AIRE)
Definition of Waste: Development Industry Code of Practice (DoW CoP)
(Ref. 80)

8.2.4 The DoW CoP provides a process which enables the reuse of excavated materials on-site or their movement between sites. Use of the DoW CoP supports the sustainable and cost-effective development of land. It can provide an alternative to Environmental Permits or Waste Exemptions.

Waste and Resources Action Programme (WRAP) Designing Out Waste: A Design Team Guide for Civil Engineering (Ref. 81)

8.2.5 The guides outline the case for taking action to designing out waste, provides a detailed explanation of the key principles that designers can use during the design process and how these principles can be applied to civil engineering and building projects to maximise opportunities to reduce construction waste and use materials more efficiently. It gives examples of technical solutions and how, in practice, designers have helped achieve significant waste reductions.

Waste Duty of Care Code of Practice (Ref. 82)

- 8.2.6 The code of practice sets out practical guidance on how to meet the waste duty of care requirements. It is issued under section 34(7) of the Environmental Protection Act 1990 (the EPA) in relation to the duty of care set out in Section 34(1) of that Act.
- 8.2.7 This code of practice applies to those that import, produce, carry, keep, treat, dispose of or, as a dealer or broker have control of, certain waste in England or Wales.
- 8.2.8 Failure to comply with the duty of care is an offence with no upper limit on the courts' power to fine. In some instances, a fixed penalty notice may be issued for failure to comply with the duty of care in place of prosecution.

Applying the Waste Hierarchy (Ref. 83)

- 8.2.9 This guidance was produced under regulation 15(1) of the Waste (England and Wales) Regulations 2011 and any person subject to the regulation 12 duty must have regard to it. The guidance is for any business or public body which generates, handles or treats waste. It sets out:
 - a. What the waste hierarchy is;
 - b. How it works for a range of common materials and products;
 - c. What businesses and public bodies need to do; and
 - d. Key questions and ideas for dealing with waste in line with the hierarchy.

8.3 Local Policy and Guidance

Policy

8.3.1 The following local policy is relevant to the assessment of materials and waste of the Scheme.

Table 22. Relevant local legislation, policy and guidance for materials and waste

Relevant Document	Relevant policies
East Riding Local Plan (adopted April 2016) (Ref. 28)	Policy ENV1: Integrating high quality design.
East Riding Local Plan Update 2020 – 2039: Proposed Submission Strategy Document Update October 2022 (Ref. 29)	Policy ENV1: Integrating high quality design.
East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan 2016 – 2033 (Adopted November 2019) (Ref. 84)	Policy AGG2: Site Allocations for Sand and Gravel Extraction Policy AGG4: Area of Search for Crushed Rock Policy AGG8: Safeguarding capacity for marine importation of mineral resources Policy AGG9: Safeguarding of Rail Facilities used for the Importation of Aggregates and Other Minerals Policy AGG10: Safeguarding of Mineral Infrastructure and Facilities
East Riding of Yorkshire and Kingston upon Hull Joint Minerals Local Plan 2016 – 2033 Policies Map (Ref. 85)	The map outlines the following: a. Minerals Safeguarding Area (EC6) b. Area of Search Crushed Rock (AGG4) c. Area of Search Sand and Gravel (AGG2) d. Preferred Area Sand and Gravel (AGG2) e. Rail Facilities (AGG9)

Relevant Document Relevant policies f. Heritage Quarries (NAM4) Kingston upon Hull and East Policies in this document relate to waste Riding of Yorkshire and Joint management development only. Waste Local Plan (Adopted 2004) (Ref. 86). Kingston upon Hull and East Preparation of a new waste local plan started in 2008 Riding of Yorkshire and Joint a second Issues and Options consultation paper was Waste Local Plan Update published in Spring 2012. An initial consultation was carried out in 2008, but due to a number of factors, (Ref. 87). work on the joint waste plan was suspended. City of York Council, North Policy S01: Safeguarding mineral resources York Moors National Park Policy S02: Developments proposed within Minerals Authority and North Yorkshire Safeguarding Areas County Council Minerals and Policy S03: Waste management facility safeguarding Waste Local Plan (Ref. 88) Policy S04: Transport infrastructure safeguarding Policy S05: Minerals ancillary infrastructure safeguarding Policy S06: Consideration of applications in **Consultation Areas** Policy W01: Moving waste up the waste hierarchy City of York Council, North The map outlines the following: York Moors National Park Allocated mineral sites Authority and North Yorkshire b. Allocated waste sites County Council Minerals and c. Safeguarded strategic waste site (S04) Waste Local Plan Policies d. Ancillary Infrastructure Map (Ref. 89) e. Railheads and Wharves Mineral Safeguarding Areas f.

- 8.3.2 Policy ENV1 of the East Riding Local Plan (Ref. 28) states that "All development proposals will seek to reduce carbon emissions and make prudent and efficient use of natural resources, particularly land, energy and water."
- 8.3.3 It goes onto state that "Development will be supported where it achieves a high quality of design that optimises the potential of the site and contributes to a sense of place. This will be accomplished by:7. Incorporating energy efficient design and arrangements to manage waste."
- 8.3.4 The Proposed Submission Local Plan Update (Ref. 29) is the latest stage in preparing a revised Local Plan for the East Riding. Documents have been prepared and published for consultation. It sits alongside other plans for the area including the Joint Minerals Plan (adopted 2019) (Ref. 84), the Joint Waste Local Plan (adopted 2004) (Ref. 86).

- 8.3.5 Policy ENV1 of the Local Plan Update (Ref. 29) states that "All development proposals will: 2. Seek to minimise the demand for energy and make prudent and efficient use of natural resources, particularly land, energy and water."
- 8.3.6 It goes on to state that "Development will be supported where it achieves a high quality of design that optimises the potential of the site and contributes to a sense of place. This will be accomplished by:9. Incorporating energy efficient design and arrangements to manage waste."
- 8.3.7 Arrangements should be in place to manage construction waste, and waste generated from the use of the development, as far up the waste management hierarchy as possible. This means preventing waste from occurring wherever possible (e.g. by reusing materials or equipment) or, if this is not possible, prepare items for reuse (e.g. by repairing damaged items). If this is not possible, recycling is the next best option and can be facilitated by the storage of refuse on-site allowing for the segregation of reusable or recyclable materials. This is followed by recovering value from waste by other means, before disposal as the last resort. This approach can be achieved through the production and implementation of a site waste management plan which details how waste arising from new development is to be managed and making the best use of resources

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