
FENWICK SOLAR FARM

Fenwick Solar Farm
EN010152

Planning Statement

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Executive Summary

- ES1 Fenwick Solar Project Limited (the Applicant) is applying for a Development Consent Order (DCO Application) under section 37 of the Planning Act 2008 (PA 2008) for Fenwick Solar Farm (the Scheme).
- ES2 The Scheme would comprise the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating facility, with a total capacity exceeding 50 megawatts (MW) together with a Battery Energy Storage System (BESS), export and import connection to the national grid via the Existing National Grid's Thorpe Marsh Substation.
- ES3 The BESS system will have the ability to store electricity generated from the Scheme and/or import energy from the grid at times of excess generation, discharging the stored energy at times of peak demand and assisting in balancing UK's electricity supplies.
- ES4 The Scheme is defined as a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(a) and 15(2) of the PA 2008 due to it generating capacity being greater than 50 megawatts (MW). The DCO Application will be determined by the Secretary of State for Energy Security and Net Zero (Secretary of State).
- ES5 This Planning Statement provides an assessment of the Scheme against the relevant policy and legislative framework. Where appropriate, it references relevant chapters of the Environmental Statement ("ES") and other reports and assessments which together form the comprehensive and detailed evidence base produced in support of this DCO Application.
- ES6 The Application will be determined in accordance with Section 104(2) of the PA 2008, whereby a DCO application must be decided in accordance with the relevant National Policy Statement (NPS) which has effect in relation to the development which is the subject of the application. The relevant NPSs for the Scheme comprise the Overarching NPS for Energy (EN-1), NPS for renewable energy infrastructure (EN-3) (together covering solar development) and NPS for Electricity Networks (EN-5) (which covers grid connection infrastructure). This Planning Statement demonstrates the acceptability of the Scheme in relation to national planning policy.
- ES7 City of Doncaster Council (as the host local planning authority) will have the opportunity to prepare a Local Impact Report (LIR) following submission of the DCO Application. This Planning Statement demonstrates the acceptability of the Scheme in relation to local planning policy.
- ES8 Prescribed matters that are relevant to the DCO Application are set out in the Infrastructure Planning (Decisions) Regulations 2010 (as amended) (the Decisions Regulations) and include Regulation 3 (regard to preserving listed buildings, conservation areas and scheduled monuments) and Regulation 7 (regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992).
- ES9 Other national and local policies considered relevant are explained in Section 2 of this Planning Statement and include relevant local plans.

- ES10 Sections 1 – 4 of this Planning Statement provide details on the legislative and policy context for the Scheme, its location and Order limits, and a summary of the operation, construction and decommissioning phases of the Scheme.
- ES11 Section 5 sets out the need and benefits of the Scheme. As identified in national policy and Government's strategy, the Government has concluded that there is a critical national priority (CNP) for the provision of national significant low carbon infrastructure, that there is an urgent need to bring forward large scale solar development to meet targets for decarbonisation and net zero, and to provide resilience, security and affordability of electricity supplies. The Scheme will deliver these policy aims, providing a significant amount of low carbon electricity over its 40-year lifetime. It will therefore be a critical part of the national portfolio of renewable and low carbon energy generation that is required to decarbonise its energy supply quickly within the UK.
- ES12 The Scheme will also deliver other more localised local economic, social and environmental benefits. These include substantial biodiversity net gain and employment generation during construction.
- ES13 Section 6 of this Planning Statement provides a detailed assessment of the Scheme against the NPSs, as well as the policies which the Applicant considers are likely to be important and relevant to the Secretary of State's decision. Appendix A NPS Accordance Tables and Appendix B Local Policy Accordance Tables of this Planning Statement also set out compliance with individual relevant policies.
- ES14 Through careful design, the Scheme seeks to avoid and mitigate impacts on the environment and sensitive receptors, whilst ensuring that the Scheme will make a significant contribution to the UK's urgent requirement for the delivery of large amounts of new renewable energy generation capacity and infrastructure.
- ES15 Section 7 provides a conclusion following the detailed assessment of the Scheme and its likely effects on the environment and sensitive receptors. It concludes that in terms of the overall planning balance, the clear and substantial benefits of the Scheme clearly outweigh any adverse effects, which would be localised, short-term, temporary and/or reversible at the end of the Scheme's lifetime. The presumption in favour of consent in NPS EN-1 sets out that these adverse effects are unlikely to outweigh the urgent need for this type of infrastructure and that any tests set out in the NPS or other planning policy are to be treated as if they have been met.
- ES16 This Planning Statement demonstrates that the Scheme is in accordance with relevant national and local policy considered to be important and relevant and that substantial weight should be given to need when considering applications for consent under the PA 2008 (Ref. 1). It concludes that given the urgent need for large scale solar development and the substantial benefits of the Scheme, there is a clear and compelling case for the DCO to be made.

1. Introduction

1.1 Overview of the Scheme

- 1.1.1 This Planning Statement has been prepared on behalf of Fenwick Solar Project Limited (hereafter referred to as ‘the Applicant’) in relation to an application for a Development Consent Order (DCO Application) for Fenwick Solar Farm (hereafter referred to as ‘the Scheme’). The DCO Application is submitted to the Planning Inspectorate, with the decision whether to grant a Development Consent Order (DCO) being made by the Secretary of State for Energy Security and Net Zero (the ‘Secretary of State’) pursuant to the Planning Act 2008 (PA 2008) (Ref. 1).
- 1.1.2 The Scheme would comprise the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating facility and associated development. The associated development proposed includes, but is not limited to, a Battery Energy Storage System (BESS); On-Site Substation; underground cabling to provide export and import connection to the National Electricity Transmission System (NETS); and areas of landscaping and biodiversity enhancements.
- 1.1.3 The location of the Scheme is shown on Figure 1-1. The Scheme is located on 509 hectares (ha) of land comprising the Solar PV Site, Grid Connection Corridor and the Existing National Grid Thorpe Marsh Substation, which are shown on Figure 1-2. The Scheme is wholly within the administrative area of City of Doncaster Council and is located on land which is predominantly agricultural in nature. The administrative areas of North Yorkshire Council and East Riding of Yorkshire Council are located immediately north and approximately 1 km northeast of the Solar PV Site respectively. Landscape features immediately surrounding the Solar PV Site comprise largely agricultural fields and small rural villages, including Fenwick, Moss and Sykehouse, as well as the hamlet of Topham.
- 1.1.4 The connection to the NETS will be either via underground cabling along a corridor running for approximately 6.3 kilometres (km) from the Solar PV Site to the Existing National Grid Thorpe Marsh Substation; or via underground cabling between the On-Site Substation and existing overhead power lines within the Solar PV Site, which connect to the Existing National Grid Thorpe Marsh Substation.
- 1.1.5 As set out in detail in Sections 1.3 and 2 of this Planning Statement, the Scheme is a Nationally Significant Infrastructure Project (NSIP). In accordance with Part 4 of PA 2008 (Ref. 1), development consent is required for development to the extent that the development is or forms part of an NSIP. Under Section 104 of the PA 2008 (Ref. 1), a DCO application must be decided in accordance with the relevant National Policy Statement (NPS) which has effects in relation to the development which is the subject of the application.
- 1.1.6 The NPSs which have effect in relation to the Scheme comprise the Overarching NPS for Energy (EN-1) (Ref. 2); NPS for Renewable Energy Infrastructure (EN-3) (Ref. 3) (together covering solar development) and NPS for Electricity Networks (EN-5) (which covers grid connection infrastructure) (Ref. 4) which were published in November 2023 and came

into force in January 2024. The Energy NPSs are discussed in Section 2 of this Planning Statement,

- 1.1.7 Overarching National Policy Statement for Energy EN-1(Ref. 2) (NPS EN-1) (Ref. 2) states that *“there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its economy.”* (paragraphs 3.3.58 and 3.3.83).
- 1.1.8 NPS EN-1 (Ref. 2) states that *“the Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure”* (paragraphs 4.2.4, 3.3.62) and that the *“Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible”* (paragraph 3.3.63).
- 1.1.9 NPS EN-1 (Ref. 2) provides that solar, along with wind, are expected to be the main forms of low carbon electricity generation which will help to reduce costs and provide clean and secure sources of electricity for the UK (paragraph 3.3.20). The National Policy Statement for Renewable Energy Infrastructure (EN-3) (Ref. 3) (NPS EN-3) includes specific national planning policy with respect to solar PV developments that are NSIPs. The Scheme will support the delivery of the Government’s renewable energy policy (set out in NPS EN-3 (Ref. 3)) which commits to *“sustained growth”* in solar capacity to meet net zero emissions by 2050, with solar being *“a key part of the Government’s strategy for low-cost decarbonisation of the energy sector”* (paragraph 2.10.9).
- 1.1.10 The Scheme therefore represents an excellent opportunity to deliver infrastructure of critical national priority as part of the UK’s portfolio of renewable energy generation that is urgently required.

1.2 The Applicant

- 1.2.1 The Applicant (Fenwick Solar Project Limited) is a wholly-owned subsidiary of BOOM Developments Limited who specialise in non-subsidised solar and battery storage projects. BOOM Developments Limited was founded in 2020, and the name BOOM is an acronym for Build Own Operate Maintain. This reflects the organisation’s intentions to be involved in sustainable energy projects from the beginning of a project through to its operation. Further information on BOOM Developments Limited can be found in the **Funding Statement [EN010152/APP/4.2]**.
- 1.2.2 The BOOM Managing Director and team have been responsible in previous roles for constructing more than 700 megawatts (MW) of solar developments in the UK between 2015 and 2017 and developing more than 850 MW of solar projects, including the UK’s first NSIP solar PV project Cleve Hill which was granted a development consent order in 2020 and East Yorkshire Solar Farm which is currently undergoing examination, examination is due to close in November 2024. In 2021, the UK based BOOM partnered with the Pelion Green Future group of companies based across Australia, America and the European mainland.
- 1.2.3 BOOM is committed to making a significant positive impact on climate change and the achievement of the UK Government’s aim for a fully decarbonised, reliable and low-cost power system by 2035 and net zero emissions by 2050.

1.2.4 The Applicant received an electricity generation licence for the Scheme from the Gas and Electricity Markets Authority on 26 July 2023.

1.3 Definition of the Scheme as a Nationally Significant Infrastructure Project (NSIP) and EIA Development

1.3.1 The Scheme is an onshore generating station in England which does not generate electricity from wind and with a generating capacity exceeding a 50 MW and is therefore classified as a NSIP under Sections 14(1)(a), 15(1) and 15(2) of the PA 2008 (Ref. 1). The PA 2008 (Ref. 1) requires a DCO to be obtained for the development of NSIPs.

1.3.2 Section 115 (1)(b) of the PA 2008 (Ref. 1) also states that a DCO can include consent for ‘associated development’, which is development that is not an NSIP in its own right, but that is associated with the delivery of an NSIP. The elements of the Scheme that constitute the NSIP and the elements that constitute associated development are defined in Schedule 1 of the **Draft Development Consent Order [EN010152/APP/3.1]** as well as summarised in Section 2 of this Planning Statement.

1.3.3 The Scheme is ‘EIA Development’ as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) (Ref. 5). An Environmental Impact Assessment has been undertaken and is reported by the **Environmental Statement (ES) [EN010152/APP/6.1]** submitted with the DCO Application. In undertaking the EIA and preparing the **ES [EN010152/APP/6.1]**, the Applicant has taken account of the EIA Scoping Opinion received on 11 July 2023, which can be found in **ES Volume III, Appendix 1-2: EIA Scoping Opinion [EN010152/APP/6.3]**.

1.4 Purpose and Structure of this Planning Statement

1.4.1 This Planning Statement is submitted as part of a suite of supplementary documents which support the DCO Application, in accordance with regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (as amended) (the APFP Regulations) (Ref. 6).

1.4.2 The purpose of this document is to provide an overview of the Scheme and its impacts, and to present the Applicant’s consideration of the Scheme against the provisions of the legislation and policies considered relevant to the Secretary of State’s decision.

1.4.3 The remainder of the Planning Statement is structured as follows:

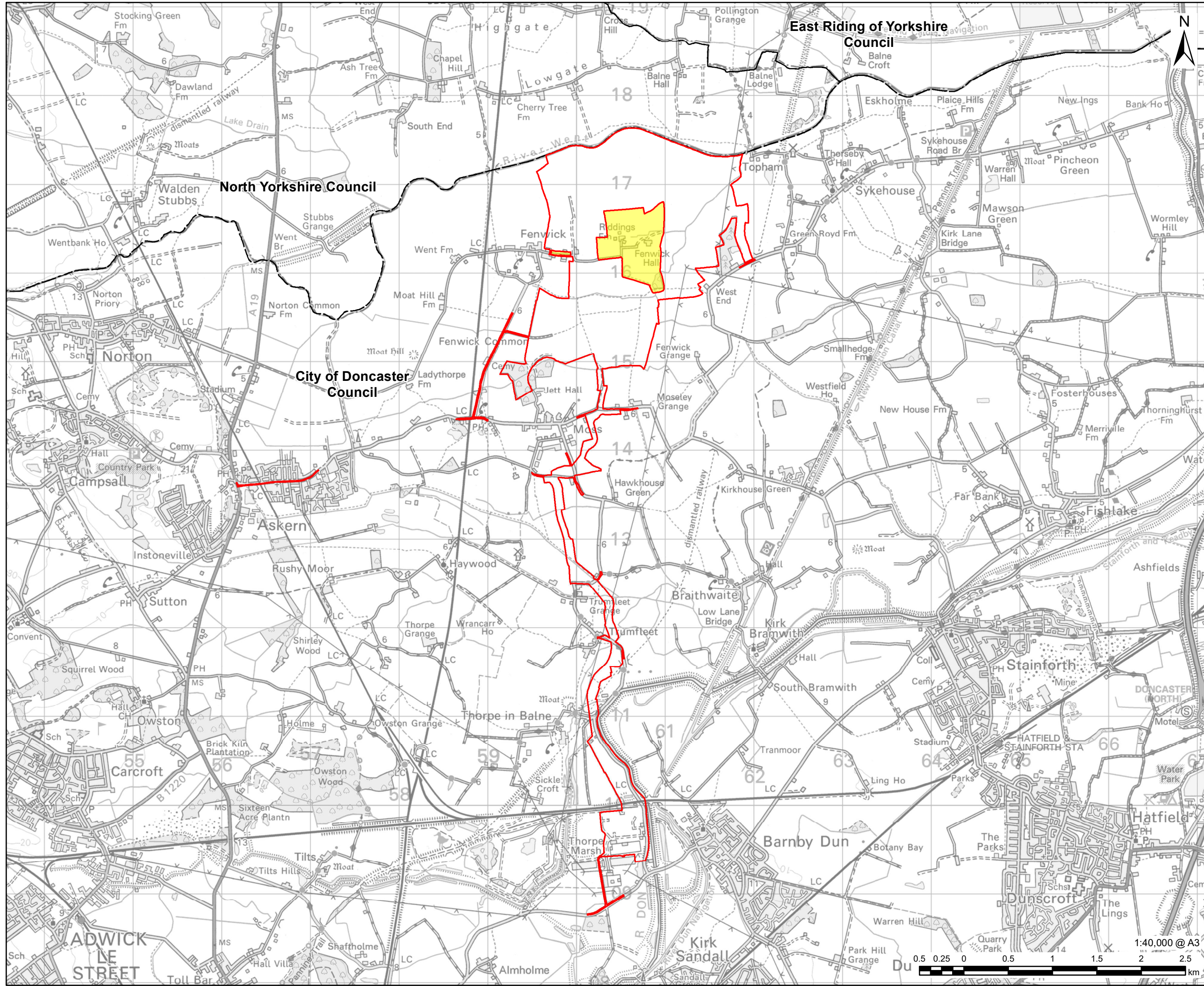
- a. **Section 2** – provides an overview of the decision-making framework including legislation and policy context as well as other important and relevant considerations.
- b. **Section 3** – describes the Order limits and the surrounding areas and summarises the relevant planning history within the Order limits.
- c. **Section 4** – provides a summary of the Scheme and its components.
- d. **Section 5** – describes the need and the benefits of the Scheme.
- e. **Section 6** – provides an assessment of the Scheme against the relevant legislative and policy context as well as other important and relevant considerations.

- f. **Section 7** – provides an assessment of the planning balance of the Scheme and how the Scheme complies with the PA 2008.
- g. **Section 8** – provides an overall conclusion in terms of the Scheme's compliance with relevant legislation and policy.
- h. **Appendix A: NPS Accordance Tables** – sets out an appraisal of the Scheme against the policies in the relevant NPSs.
- i. **Appendix B: Local Policy Accordance Tables** – sets out an appraisal of the Scheme against relevant and important local policies.
- j. **Appendix C: Heritage Statement** – provides an assessment of harm on designated heritage assets as a result of the Scheme.

1.5 Relationship of the Planning Statement to the DCO Application

1.5.1 In assessing the Scheme against relevant policy and demonstrating the overall planning case for the Scheme, this Planning Statement draws upon the evidence and information set out in the other documents that accompany the DCO Application, interpreting them as necessary within the context of relevant policy and planning considerations. This Planning Statement, therefore, draws upon and should be read alongside the following documents:

- a. **Draft Development Consent Order (draft DCO) [EN010152/APP/3.1];**
- b. **Consultation Report [EN010152/APP/5.1];**
- c. **Environmental Statement (ES) [EN010152/APP/6.1], Figures [EN010152/APP/6.2], Appendices [EN010152/APP/6.3] and Non-Technical Summary [EN010152/APP/6.4];**
- d. **Design and Access Statement [EN010152/APP/7.2];**
- e. **Statement of Need [EN010152/APP/7.3];**
- f. **Outline Design Parameters Statement [EN010152/APP/7.4];**
- g. **Framework Construction Environmental Management Plan (CEMP) [EN010152/APP/7.7];**
- h. **Framework Operational Environmental Management Plan (OEMP) [EN010152/APP/7.8];**
- i. **Framework Decommissioning Environmental Management Plan (DEMP) [EN010152/APP/7.9];**
- j. **Framework Soil Management Plan (SMP) [EN010152/APP/7.10];**
- k. **Biodiversity Net Gain (BNG) Assessment Report [EN010152/APP/7.11];**
- l. **No Significant Effects Report (NSER) [EN010152/APP/7.12];**
- m. **Framework Public Rights of Way (PRoW) Management Plan [EN010152/APP/7.13];**
- n. **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14];**



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LEGEND

- Order limits
- Land not included in the Order limits
- Local Authority Boundary



NOTES

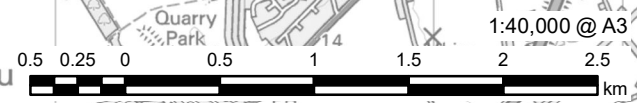
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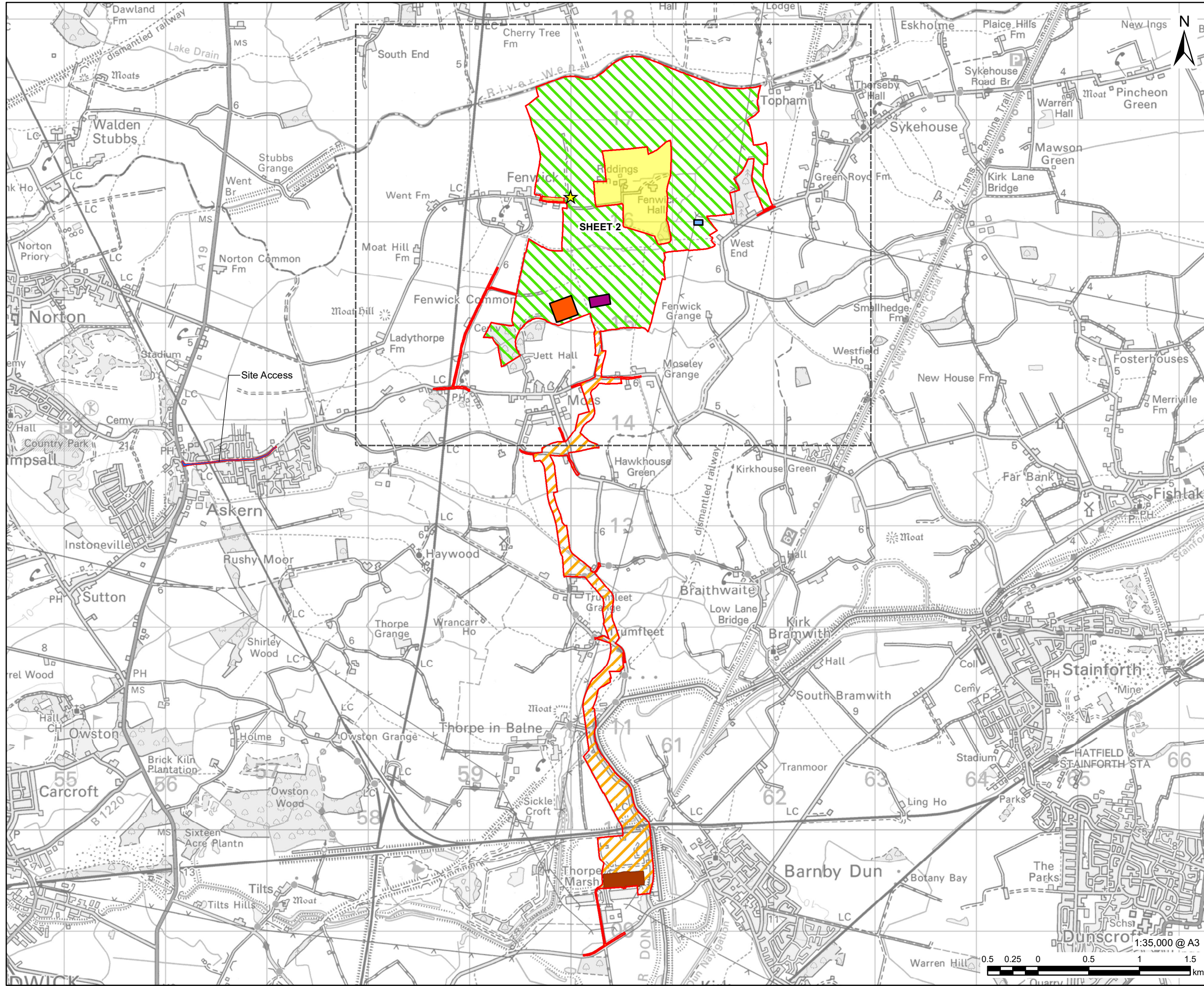
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FIGURE TITLE
Scheme Location and the Order limits

FIGURE NUMBER
Figure 1-1



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- LEGEND**
- Order limits
 - Land not included in the Order limits
 - ★ Location of Operations and Maintenance Hub
 - Solar PV Site
 - Grid Connection Corridor
 - Site Access
 - BESS Area
 - On-Site Substation
 - Grid Connection Line Drop Compound
 - Existing National Grid Thorpe Marsh Substation

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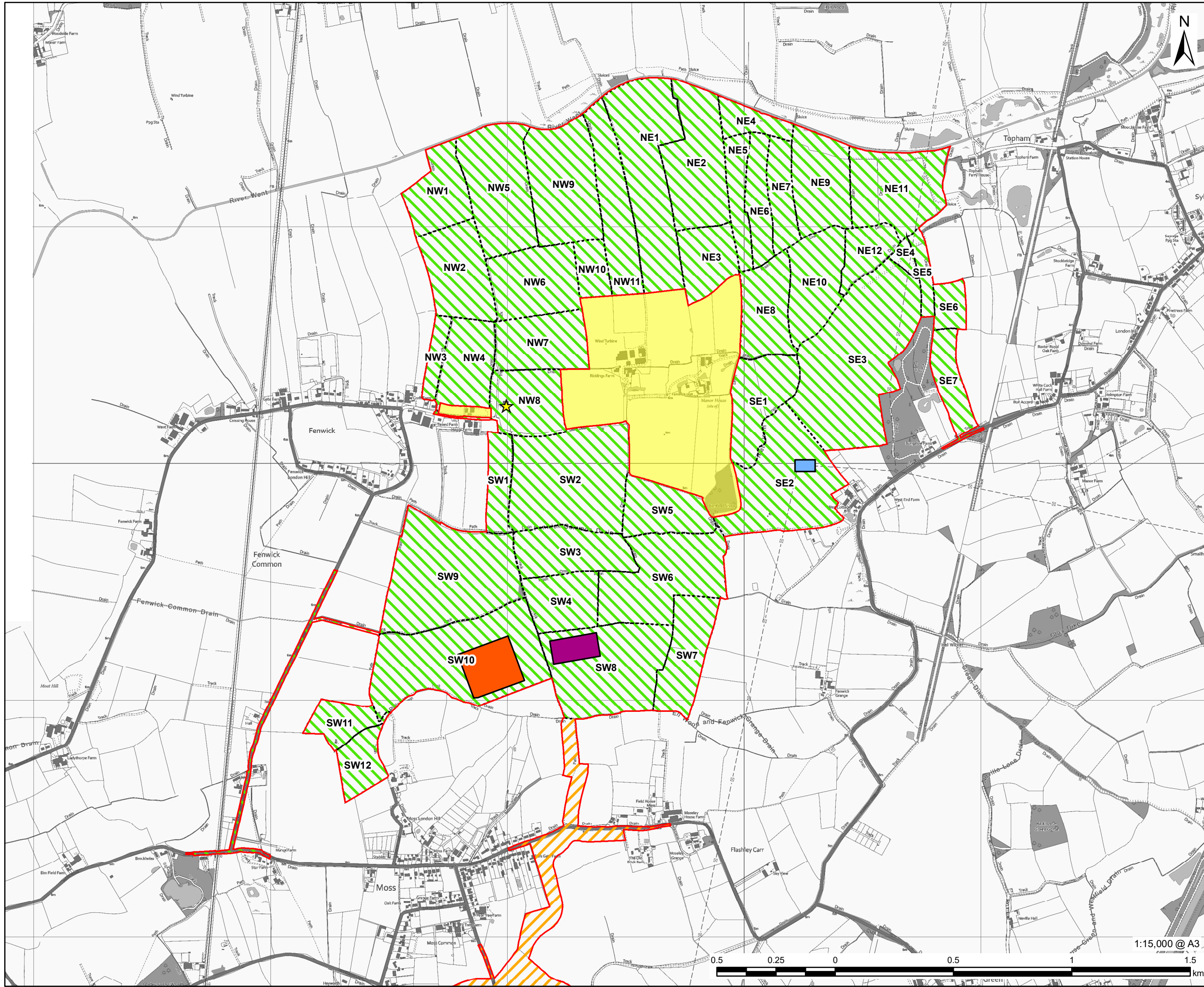
ISSUE PURPOSE
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FIGURE TITLE
Elements of the Site: Site Boundary
Sheet 1 of 2

FIGURE NUMBER
Figure 1-2

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- LEGEND**
- Order limits
 - Land not included in the Order limits
 - ★ Location of Operations and Maintenance Hub
 - Field Boundary
 - Solar PV Site
 - Grid Connection Corridor
 - BESS Area
 - On-Site Substation
 - Grid Connection Line Drop Compound

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FIGURE TITLE
Elements of the Site: Solar PV Site
Sheet 2 of 2

FIGURE NUMBER
Figure 1-2

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2. Legislative and Policy Context

2.1 Introduction

- 2.1.1 This section outlines the legislative framework and the planning policy context for the Scheme. Section 2.2 sets out the relationship of the Scheme with the PA 2008 (Ref. 1). Section 2.3 introduces the relevant NPSs. Sections 2.4 to 2.7 outline other legislation, policy and documents that the Secretary of State is required to consider and may consider to be important and relevant in their decision making.

2.2 The Basis for Decision-Making

The Planning Act 2008

- 2.2.1 The PA 2008 (Ref. 1) provides the legislative basis and defines the application process under which consent for NSIPs is sought.
- 2.2.2 The Scheme is defined as an NSIP under Section 14(1)(a) and 15(2) of the PA 2008 (Ref. 1) (as amended) as it meets the following criteria:
- a. The Scheme comprises the construction of a generating station (Section 14(1)(a) of the PA 2008 (Ref. 1));
 - b. It would be located in England (Section 15(2)(a) of the PA 2008 (Ref. 1));
 - c. It would not generate electricity from wind (Section 15(2)(aa) of the PA 2008 (Ref. 1));
 - d. It would not be an offshore generating station (Section 15(2)(b) of the PA 2008 (Ref. 1)); and
 - e. Its capacity would be more than 50 MW (Section 15(2)(c) of the PA 2008 (Ref. 1)).
- 2.2.3 In accordance with Part 4 of PA 2008 (Ref. 1), a DCO is required for the development of an NSIP. This DCO Application primarily seeks consent for the construction, operation and maintenance, and decommissioning of a generating station with a capacity of more than 50 MW, as the principal development. This includes solar PV panels fitted to mounting structures and the field stations which provide the transformers, inverters, and switchgear.

Associated Development

- 2.2.4 Section 115 of the PA 2008 (Ref. 1) allows a DCO to include consent for development which is development that is not an NSIP in its own right but is associated with the principal development for which development consent is required. Examples of associated development might include development that supports construction, operation, or decommissioning or which helps address impacts of the NSIP.
- 2.2.5 The associated development proposed to be authorised is defined in Schedule 1 of the **draft DCO [EN010152/APP/3.1]** and explained in the **Explanatory Memorandum [EN010152/APP/3.2]**.
- 2.2.6 Guidance on associated development for major infrastructure projects (GADA) (Ref. 10) was issued by the Department for Communities and Local Government (DCLG) in 2013. The guidance states in Paragraph 6 that

associated development will “be typical of development brought forward alongside the relevant type of principal development or of a kind that is usually necessary to support a particular type of project”. Paragraph 5 of GADA (Ref. 10) sets out the core principles when determining whether or not development should be treated as associated development. According to the guidance, associated development should:

- a. Have a direct relationship with the principal development. It should support construction or operation of the principal development, or help address its impacts;
- b. Be subordinate to the principal development;
- c. Not only be necessary solely as a source of additional revenue for the applicant in order to cross subsidise the cost of the principal development. This does not mean that the applicant cannot cross-subsidise, but if part of a proposal is only necessary as a means of cross-subsidising the principal development then that part should not be treated as associated development; and
- d. Be proportionate to the nature and scale of the principal development.

2.2.7 Schedule 1 of the **draft DCO [EN010152/APP/3.1]** sets out the description of the works for which development consent is sought. Work No. 1 is the ground mounted solar photovoltaic generating station, including solar panels fitted to mounting structures and field stations and constitutes the NSIP.

2.2.8 Works No. 2 to 9 describe the associated development for which development consent is being sought.

2.2.9 Work No. 2 comprises the Battery Energy Storage Systems (BESS) including protective structures, monitoring and control systems and cooling systems, fire safety infrastructure and electrical cables. The BESS is classed as associated development because:

- a. It has a direct relationship with the principal development (Work no. 1) and will support its operation by storing electricity produced during times of peak capacity until it needs to be released. This increases the efficiency of the principal development as a renewable energy project aiding both its operation as a generation station and the export of electricity to the NETS.
- b. The aim of the project is to generate electricity from renewable sources. The BESS does not do that, instead facilitating the more efficient use of the power generated by the solar panels. It is therefore subordinate to the principal development and is dependent on the operation of the principal development. The BESS would not be constructed without Work No. 1 and as such it is evidently subordinate to it.
- c. The **Statement of Need [EN010152/APP/7.3]** demonstrates that solar is economically efficient in Great Britain. Solar is already the cheapest form of electricity generation in the UK and over 1GW of unsubsidised solar has been deployed since the end of the feed in tariff regime. Solar is economically rational on a standalone basis and the BESS is not required for cross-subsidisation of the solar facility.
- d. It is proportionate to the nature and scale of the Scheme from both a power and energy storage capacity, as it allows the Scheme to optimise

both land use and grid connection capacity, by developing as efficient as possible a scheme which seeks to minimise and mitigate local environmental impacts, while delivering a more consistent export of energy to the market.

- e. The Applicant proposes to construct the BESS in parallel with the principal development such that operation of both aspects can commence together once construction is complete.

2.2.10 Work Nos. 2 to 9 are summarised below:

- a. Work No. 2: battery energy storage system (BESS) and associated works;
- b. Work No. 3: On-Site Substation and associated works;
- c. Work No. 4: works to lay electrical cables, including within or around the Existing National Grid Thorpe Marsh Substation;
- d. Work No. 5: ancillary works within the site including cabling, landscaping and biodiversity measures, earthworks, paths and related signage, hardstanding and parking areas, drainage works, boundary treatments, private tracks and construction compounds;
- e. Work No. 6: construction and decommissioning compounds;
- f. Work No. 7: operations and maintenance buildings;
- g. Works No. 8: works to facilitate access to the Works no 1 to 9; and
- h. Works No. 9: areas of habitat management.

2.2.11 All these works are necessary to support the construction, operation and maintenance, and decommissioning of the Scheme and to address its impacts. They are also subordinate to the principal development under Work No. 1. They are not solely needed as sources of additional revenue for cross-funding purposes and are proportionate to the scale of the development. Therefore, all the works covered by Work Nos. 2 to 9 are all considered as associated development in accordance with the GADA (Ref. 10) and within the provisions of Section 115(2) of the PA 2008 (Ref. 1).

Legislative and Policy Framework

2.2.12 Part 6 of the PA 2008 (Ref. 1) is to be applied when determining an application for a DCO. Sections 103 to 107 of the PA 2008 (Ref. 1) provide the framework for decision making of a DCO application.

2.2.13 Section 104(2) of the PA 2008 (Ref. 1) provides the basis for determining an application for development consent in cases where a NPS has effect in relation to development of the description to which the application relates. It states that, in deciding an application, the Secretary of State must have regard to:

- a. any relevant NPSs;
- b. the appropriate marine policy documents (if any);
- c. any Local Impact Report submitted to the Secretary of State;
- d. any matters prescribed in relation to development of the description to which the application relates; and

- e. any other matters which the Secretary of State thinks are both important and relevant to their decision.
- 2.2.14 Marine policy documents cover licensable development within the marine area and areas involved in fishing and shipping that are not subject to a marine licence. Neither such areas are within or adjacent to the Order limits and are therefore not affected by the Scheme. The Secretary of State does not therefore need to have regard to marine policy documents for the determination of the DCO Application.
- 2.2.15 As detailed above, Section 104(2) of the PA 2008 (Ref. 1) sets out that the primary policy consideration for NSIPs include any relevant NPS. The NPSs are produced by the Government, pursuant to specific legislative requirements under the PA 2008 (Ref. 1) to set out policy for nationally significant infrastructure development in a particular sector and provide the framework for decisions on applications for NSIPs in that sector.
- 2.2.16 In this case, adopted Energy NPSs are of relevance to the Scheme, therefore Section 104 of the PA 2008 (Ref. 1) applies. The relevant Energy NPSs are set out in the following section.

2.3 Relevant National Planning Policy Statements

- 2.3.1 This section of the Planning Statement is supported by Appendix A: NPS Accordance Tables which identify the policies that the Secretary of State must have regard to when determining the DCO Application, in accordance with Section 104(2) of the PA 2008 (Ref. 1), and presents an appraisal of compliance with these policies.
- 2.3.2 The relevant NPSs comprise the following Energy NPSs which were published in November 2023 and came into effect on 17 January 2024, as set out below:
- a. NPS EN-1 (Nov 2023) (Ref. 2);
 - b. NPS EN-3 (Nov 2023) (Ref. 3); and
 - c. NPS EN-5 (Nov 2023) (Ref. 4).
- 2.3.3 The above Energy NPSs are the relevant NPSs in accordance with which the Scheme is required to be decided, as per Section 104(2) of the PA 2008 (Ref. 1).
- 2.3.4 NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3) are relevant because they cover solar development specifically, while NPS EN-5 (Ref. 4) covers the grid connection infrastructure.

2.4 Local Impact Report

- 2.4.1 City of Doncaster Council is the host authority and will have the opportunity to prepare a Local Impact Report (LIR) following submission of the DCO Application. The LIR will be considered by the Secretary of State in determining the DCO Application. With reference to Section 60 of the PA 2008 (Ref. 1) and the Planning Inspectorate's NSIP Advice Page for Local Authorities: Local Impact Reports (Ref. 11). The LIR would also address relevant local planning policies.

2.5 Prescribed Matters

- 2.5.1 The prescribed matters referred to in Section 104(2)(c) of the PA 2008 (Ref. 1) are set out in the Infrastructure Planning (Decisions) Regulations 2010 (as amended) (the Decisions Regulations) (Ref. 12). The Decisions Regulations that are of relevance to the Scheme are:
- a. Regulation 3 – Having regard to the desirability of preserving listed buildings, conservation areas and scheduled monuments and their settings where the development would affect these. Details of the heritage assets relevant to the Order Limits are considered in Section 6.10 of this Planning Statement and **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**.
 - b. Regulation 7 – Having regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992. This is discussed in Section 6.8 of this Planning Statement and **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**.

2.6 Other Important and Relevant Matters

Introduction

- 2.6.1 Other national and local policy may also be considered ‘important and relevant’ to the decision-making process by the Secretary of State. It is considered likely that some parts of the National Planning Policy Framework (NPPF) (Ref. 13) (and associated guidance within the Planning Practice Guidance (PPG) (Ref. 14) and the local plan of City of Doncaster Council (Ref. 16) may be considered as ‘important and relevant’ in accordance with Section 105(2)(c) of the PA 2008 (Ref. 1). The following sections discuss the national and local policy context.

Planning Policy

National Planning Policy Framework (December 2023)

- 2.6.2 The NPPF (Ref. 13) was updated in December 2023 and sets out the Government’s planning policies for England and is a material planning consideration in the determination of planning applications under the Town and Country Planning Act 1990 (TCPA 1990) (Ref. 15).
- 2.6.3 Paragraph 5 makes it clear that the NPPF does not contain specific policies for NSIPs and that applications in relation to NSIPs are to be determined in accordance with the decision-making framework set out in the PA 2008 and relevant NPSs. On this basis the NPPF is of less relevance to the Secretary of State’s decision than the relevant Energy NPSs.
- 2.6.4 The NPPF is however supported by the Planning Practice Guidance (PPG) (Ref. 14) and NPS EN-1 (Ref. 2) does include footnote references to the Planning Practice Guidance (PPG) (Ref. 14). Therefore, reference to the NPPF and PPG is only made in respect of relevant matters within Section 6 of this Planning Statement.

Local Planning Policy

- 2.6.5 Policies in Local Plans are frequently considered important and relevant matters and can influence the content of local impact reports (which host

local authorities will prepare following submission of the DCO Application), and which the Secretary of State will have regard to in its decision making in accordance with the PA 2008 (Ref. 1).

- 2.6.6 This section of the Planning Statement is supported by Appendix B: Local Policy Accordance Tables which identify the policies that the Secretary of State may consider to be important and relevant when determining the DCO Application, in accordance with Section 104(2) of the PA 2008, and presents an appraisal of the Scheme's compliance with these policies.
- 2.6.7 The Scheme lies wholly within the administrative area of City of Doncaster Council.
- 2.6.8 The following documents form the Development Plan for the land within which the Scheme is located:
- a. Doncaster Local Plan (adopted 23 September 2021) (Ref. 16)
 - b. Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted March 2012) (Ref. 17)
- 2.6.9 Within the administrative area of City of Doncaster Council, there is no made neighbourhood plan (which forms part of the Development Plan) which is of relevance or in close proximity to the Scheme.
- 2.6.10 To support the implementation of its adopted local plan (Ref. 16) the City of Doncaster Council has prepared the following Supplementary Planning Documents (SPD):
- a. Biodiversity Net Gain SPD (adopted September 2022) (Ref. 18);
 - b. Flood Risk SPD (adopted August 2023) (Ref. 19); and
 - c. Technical and Developer Requirements SPD (adopted August 2023) (Ref. 20).
- 2.6.11 Under regulation 10A of The Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended) (Ref. 21) local planning authorities must review local plans at least once every five years from their adoption date to ensure that policies remain relevant and effectively address the needs of the local community. This is also mirrored in the NPPF.
- 2.6.12 The City of Doncaster Local Development Scheme (Ref. 22) sets out a timetable for preparing updated planning policy. It confirms that, as of June 2024, there is currently no formal timetable to update the current adopted Local Plan as it is considered up to date. It also confirms that a combined South Yorkshire Waste Local Plan will be produced to replace the Barnsley, Doncaster and Rotherham Joint Waste Plan (adopted March 2012) (Ref. 17). However, consultation on the 'Issues and Options' stage of the Waste Plan is expected in Summer 2025, followed by consultation on the 'Publication Stage' in Spring 2026 and adoption in Summer/ Autumn 2027. Therefore, as no document currently exists, the emerging Waste Plan is not an important and relevant consideration.

2.7 Other Legislation and Policy Considered to be Important and Relevant

- 2.7.1 There are other national legislation and policy documents relating to energy and climate change which are considered to be important and relevant

considerations. Some of these are discussed in more detail within the **Statement of Need [EN010152/APP/7.3]**, and include the following:

- a. The Energy Act (2023) (Ref. 23);
- b. Progress Report to Parliament Climate Change Committee 2023 (Ref. 24);
- c. Powering Up Britain (March 2023) (Ref. 25)
- d. British Energy Security Strategy (2022) (Ref. 26);
- e. Mission Zero – the Skidmore Review (January 2023) (Ref. 27);
- f. Net Zero Strategy: Building Back Greener 2021 (Ref. 28);
- g. Energy White Paper: Powering our Net Zero Future (2020) (Ref. 29);
- h. National Infrastructure Strategy (2020) (Ref. 30);
- i. The Climate Change Act 2008 (and the Climate Change Act 2008 (2050 Target Amendment) Order 2019 (Ref. 31).

2.8 Pre-Application Consultation

2.8.1 Sections 42 and 47 of the PA 2008 (Ref. 1) require applicants for DCOs to carry out formal (statutory) pre-application consultation on their proposals. There are several policy and legislative requirements on how this consultation must be undertaken that are set out in the PA 2008 (Ref. 1) and related regulations, as well as the relevant guidance.

2.8.2 The Applicant has undertaken extensive consultation throughout the development of the Scheme. This is described in the **Consultation Report [EN010152/APP/5.1]** and its supporting appendices **[EN010152/APP/5.2]**, and includes the stages listed below:

- a. EIA Scoping Consultation – an EIA Scoping Report was submitted to the Planning Inspectorate on 1 June 2023 and a EIA Scoping Opinion was received on 11 July 2023 including formal responses received by the Planning Inspectorate from consultees.
- b. Non-Statutory Consultation – an initial round of non-statutory public consultation which ran for a period of four weeks between 27 June and 24 July 2023. Feedback was sought on early proposals for the Scheme, the approach to EIA, and the Applicant's approach to consultation. The consultation took place both online and through in-person events.
- c. Public Statutory Consultation – statutory consultation was held between 18 April and 31 May 2024. This provided information to the local community, affected stakeholders and anyone with an interest in the Scheme and gave them an opportunity to comment on the proposals at this stage. This included consultation on the preliminary environmental information. The consultation took place both online and through in-person events.
- d. Targeted Consultation – following statutory consultation, targeted consultation was undertaken between 1 August and 30 August 2024 and 7 September and 8 October 2024.
- e. Ongoing consultation during all these stages with:
 - i. City of Doncaster Council

- ii. The Planning Inspectorate
- iii. South Yorkshire Archaeology Service
- iv. Member of Parliament (MP) for Doncaster North
- v. Environment Agency;
- vi. Natural England;
- vii. Historic England;
- viii. Landowners;
- ix. Parish and Ward Councillors; and
- x. Local Residents.

2.8.3 The Applicant has had regard to all feedback it has received in response to its consultations when developing the Scheme. This is described in the **Consultation Report [EN010152/APP/5.1]** and the **Consultation Report Appendices [EN010152/APP/5.2]**

2.9 Additional Consents

2.9.1 A DCO, if granted, has the effect of providing consent for development in addition to a range of other consents and licences where specified as well as removing the need for some consents such as planning permission. Details of the consents and licences included in the **draft DCO [EN010152/APP/3.1]** are explained in the **Explanatory Memorandum [EN010152/APP/3.2]** and the **Consents and Agreement Position Statement [EN10131/APP/6.3]**. The latter also explains a list of likely consents to be sought outside the DCO process.

3. The Order Limits and Surrounding Context

3.1 Introduction

- 3.1.1 The following sections describe the existing context of the land within and surrounding the Order limits, before describing environmental designations that are within and surrounding the Order limits. Other environmental and planning considerations of the land within and surrounding the Order limits are also discussed.
- 3.1.2 A detailed description of the Order limits is also available in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.

3.2 The Order Limits

- 3.2.1 The Order limits cover approximately 509 hectares (ha) of land and comprise principally the Solar PV Site; the Grid Connection Corridor; and the Existing National Grid Thorpe Marsh Substation. These elements are shown on Figure 1-2 and are summarised below.
- 3.2.2 The Order limits also include a section of highway at the junction of the A19 and Station Road in the town of Askern to allow for abnormal indivisible load (AIL) vehicle access and escort. This area is approximately 1 ha and is centred on the approximate National Grid Reference SE 56598 13647. See Figure 1-1.

Solar Photovoltaic (PV) Site

- 3.2.3 The Solar PV Site covers approximately 407 ha of land and is the location of the ground mounted solar PV panels, planting and mitigation areas, Field Stations, the Battery Energy Storage System (BESS), the On-Site Substation, an Operations and Maintenance Hub and associated infrastructure.
- 3.2.4 The Solar PV Site is marked by the River Went along its northern boundary, Fenwick Common Drain along its southwestern boundary and Eil Wood and Fenwick Grange Drain forms the southern boundary. Fleet Drain extends through the northeast corner of the Solar PV Site.
- 3.2.5 Land within the Solar PV Site comprises arable and pasture fields located on a low lying and generally flat landform. Fields are divided by a combination of drainage ditches, hedgerows, trees and farm access tracks. Existing 400 kV pylons are located within the Solar PV Site close to its eastern and south eastern boundaries. A modern agricultural building is within the Solar PV Site, close to the western boundary.
- 3.2.6 To the southwest part of the Solar PV Site are several Public Rights of Way (PRoW) which follow field boundaries. The Site includes twelve PRoW within the Solar PV Site.

Grid Connection Corridor

- 3.2.7 The Grid Connection Corridor is the area outside the Solar PV Site in which the 400 kV and associated cables (the Grid Connection Cables) would be installed between the On-Site Substation to the Existing National Grid Thorpe Marsh Substation.

- 3.2.8 The land within the Grid Connection Corridor is predominantly agricultural fields bound by hedgerows with trees. The Grid Connection Corridor crosses watercourses, local roads (Moss Road, Trumfleet Lane, Brick Kiln Lane, Marsh Road, Thorpe Lane) and the Network Rail freight line north of the Existing National Grid Thorpe Marsh Substation. In these locations, it is likely that horizontal directional drilling will be used (see **ES Volume II Figure 2-4: Location of Temporary Construction Compounds and Indicative HDD Areas [EN010152/APP/6.2]**).
- 3.2.9 The connection to the National Electricity Transmission System (NETS) will be either via underground cabling along the Grid Connection Corridor or via the Grid Connection Line Drop comprising underground cabling between the On-Site Substation and existing overhead power lines within the Solar PV Site. Should the Grid Connection Line Drop option be feasible (which will be able to be determined after the DCO is granted), this would supersede the requirement for Grid Connection Cables along the Grid Connection Corridor and the cabling for the Grid Connection Line Drop would be confined to the Solar PV Site. In this event, the associated working areas within the Grid Connection Corridor would no longer form part of the Scheme.

Existing National Grid Thorpe Marsh Substation

- 3.2.10 The Existing National Grid Thorpe Marsh Substation (owned and operated by National Grid) is located approximately 6 km to the south of the Solar PV Site. This is where the 400 kV Grid Connection Cables would connect to the NETS (should the Grid Connection Line Option not be possible). The substation is located on land that formed part of the Thorpe Marsh Power Station which was closed in 1994 and has since been demolished.

Surrounding Context

- 3.2.11 Land surrounding the Solar PV Site largely comprises agricultural fields and small rural villages. At the closest point, the Solar PV Site Boundary is located immediately adjacent to the east of the village of Fenwick and approximately 1 km west and 1 km north of the villages of Sykehouse and Moss respectively.
- 3.2.12 Riddings Farm and Fenwick Hall are located on land that is excluded from the Order limits but the land is surrounded by the Solar PV Site. Riddings Farm consists of a bungalow in proximity to Lawn Lane. Taller, two storey barns are to the north of the bungalow, along with a single wind turbine, measuring 24.6 m tall. Fenwick Hall consists of a residential property, along with a range of farm buildings.
- 3.2.13 The A19 is located approximately 3 km to the west of the Solar PV Site, the M62 is approximately 4 km to the north and the M18 approximately 7 km to the east. Moss Road runs directly to the south of the Solar PV Site, in an east-west direction, providing access from the A19 to the access points.
- 3.2.14 As shown on **ES Volume II Figure 2-2 Public Rights of Way [EN010152/APP/6.2]**, there is a network of PRow both within the Solar PV Site and the surrounding area. Details of these are set out within Section 4 of this report and in the **Framework PRow Management Plan [EN010152/APP/7.13]**.
- 3.2.15 Land surrounding the Grid Connection Corridor is predominantly agricultural fields bound by hedgerows with trees. At the southern part of the Grid

Connection Corridor, the River Don is located to the east and the hamlet of Trumfleet and the village of Thorpe are located to the west.

- 3.2.16 Land surrounding the Existing National Grid Thorpe Marsh Substation shows remnants of its previous use as Thorpe Marsh Power Station, including the existing Network Rail freight line to the north, a former ash disposal site to the west and a further substation to the south. To the east is the River Don, beyond which is the village of Barnby Dun.

3.3 Environmental Designations and Allocations Within and Surrounding the Order limits

- 3.3.1 Key environmental planning constraints within and surrounding the Order limits are shown on **ES Volume II Figure 2-1 Environmental Planning Constraints**. Further detail regarding the Order limits and the surrounding areas is provided in the **ES Volume I Chapters 6 to 14 [EN010152/APP/6.1]**.

Within the Order limits

- 3.3.2 There are no international, national or regionally designated nature conservation sites within the Order limits. There are four non-statutory Local Wildlife Sites (LWS) located wholly or partially within the Order Limits, one of which, Went Valley LWS, is partly located in the northern part in the Solar PV Site and three of which are located in the Grid Connection Corridor. Wrancarr Drain and Braithwaite Delves LWS, Trumfleet Pit LWS and Trumfleet Pond LWS are all partially located within the Grid Connection Corridor. Further details of the ecology within and surrounding the Order limits are reported in **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**.
- 3.3.3 There are no World Heritage Sites, Registered Parks and Gardens, Registered Battlefields, or Protected Wrecks within the Order limits or within 3 km from the Solar PV Site and 1 km from the Grid Connection Corridor and the Existing National Grid Thorpe Marsh Substation. There are no designated heritage assets comprising Scheduled Monuments, Listed Buildings and Conservation Areas within the Order limits.
- 3.3.4 Searches of both the SYAS Historic Environment Record (HER) and North Yorkshire Council HER have identified four non-designated heritage assets located within the Solar PV Site and one located within the Grid Connection Corridor:
- a. Unclassified cropmark (02791/01);
 - b. Undated probable enclosure or ditch intersection (05633);
 - c. Undated ring ditch and linear ditches (05632);
 - d. Undated possible ring ditch (05631); and
 - e. Unclassified cropmark and earthwork, Moss (02531/01).
- 3.3.5 **ES Volume III Appendix 7-2: Cultural Heritage Desk-based Assessment [EN010152/APP/6.3]** sets out the baseline conditions for the Order limits and Study Areas. This includes the results of a Geophysical Survey undertaken on the Solar PV Site between May and October 2023 (refer to **ES Volume III Appendix 7-4: Geophysical Survey Report**

[EN010152/APP/6.3]) and is informed by interim fieldwork results from trial trenching.

- 3.3.6 There are no international, national or regional landscape designations within the Order limits.
- 3.3.7 There are no allocations for residential development, employment development or for minerals and waste development within the Order limits.

The Surrounding Area

- 3.3.8 There are three sites statutorily designated for their biodiversity value at an international level and within 10 km of the Order limits. These are:
 - a. 'Thorne Moor' Special Area of Conservation (SAC)
 - b. 'Thorne and Hatfield Moors' Special Protection Area (SPA); and
 - c. 'Hatfield Moor' SAC
- 3.3.9 Beyond 10 km of the Order limits, the River Went and minor watercourses connected to it are linked to the Humber Estuary SAC/Ramsar site approximately 16 km downstream of the Solar PV Site via the River Don and Dutch River. The Humber Estuary SAC/Ramsar site is in part designated for two migratory fish species (River Lamprey and Sea Lamprey), which have the potential to be present in the River Went and connected watercourses.
- 3.3.10 There is one site statutorily designated for its biodiversity value at a national level within 2 km of the Order limits, this being Shirley Pool SSSI which is located approximately 900 m to the south of the Order limits (this being from the section of highway in the Order limits which is at the junction of the A19 and Station Road in the town of Askern).
- 3.3.11 There are several listed buildings and scheduled monuments in proximity to the Solar PV Site, which, with reference to the **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]** and **ES Volume II Figure 7-1: Designated Heritage Assets [EN010152/APP/6.2]** include:
 - a. Fenwick Hall moated site scheduled monument, Barn and outbuildings (Grade II) and Fenwick Hall (Grade II) within Fenwick Hall, located approximately 110 m from the Solar PV Site;
 - b. The Dovecote and outbuildings (Grade II), Barn and Granary (Grade II) and Lily Hall (Grade II) within Riddings Farm, located approximately 160 m from the Solar PV Site;
 - c. Dovecote and outbuildings (Grade II), located approximately 170 m to the southeast of the Solar PV Site at West End;
 - d. Topham Ferry Bridge (Grade II), located approximately 250 m to the northeast of the Solar PV Site at the River Went;
 - e. Ponderosa Farmhouse Barn (Grade II), located approximately 1.2 km to the south of the Solar PV Site at Moss; and
 - f. Lowgate Farmhouse (Grade II), located approximately 1.5 km to the northwest of the Solar PV Site, between the River Went and Pollington.
- 3.3.12 Fenwick Hall, Barn and outbuildings are a well-defined group of Grade II listed buildings which are located on land outside the Order limits but the

land is surrounded by the Solar PV Site. The listed buildings overlie the scheduled monument of the Fenwick Hall moated site.

- 3.3.13 The scheduled monument Thorpe in Balne moated site, chapel and fishpond, as well as four Grade II and one Grade II* Listed Buildings, are located in close proximity to the Grid Connection Corridor.
- 3.3.14 Green Belt extends westwards of the railway to the west of the Order limits (and broadly extends across the western half of the City of Doncaster administrative area).
- 3.3.15 There are no allocations for residential development, employment development or for minerals and waste development within close proximity of the Order limits. The closest allocations, as identified in the Doncaster Local Plan (Ref. 16) include:
- a. a mixed use and housing allocations in Askern (approximately 4km west of the Solar PV Site and Grid Connection Corridor);
 - b. a mixed use allocation to the immediate east of Stainforth, known as the 'Unity Project', approximately 4km east and south east of the Grid Connection Corridor and Solar PV Site; and
 - c. a housing allocation to the immediate east of Barnby Dun, approximately 1.3km east of the Existing National Grid Thorpe Marsh Substation.

3.4 Other Environmental and Planning Considerations

Landscape

- 3.4.1 With regard to landscape character, at the national level, the Solar PV Site and the Grid Connection Corridor are within the Natural England's NCA 39: Humberhead Levels Landscape Character Area (LCA) (Ref. 33).
- 3.4.2 The Humberhead Levels LCA is a flat, low-lying and large scale agricultural landscape bounded to the west by the low ridge of the Southern Magnesian Limestone and to the east by the Yorkshire Wolds (north of the Humber) and the Northern Lincolnshire Edge with Coversands (south of the Humber). To the north it merges into the slightly undulating landscape of the Vale of York, at the line of the Escrick Moraine, and in the south it merges into the Trent and Belvoir Vales and Sherwood.
- 3.4.3 At a local level, the Doncaster Landscape Character and Capacity Study 2007 (Ref. 34) sets out eight Landscape Character Types (LCTs) and smaller LCAs across Doncaster.
- 3.4.4 With reference to **ES Volume II Figure 10-2: National and Regional Character Areas [EN010152/APP/6.2]**, the Solar PV Site and a large portion of the Grid Connection Corridor are within LCT F: Settled Clay Farmlands (LCT F). LCT F is described as a flat wide floodplain, characterised by historic small scale pastoral agricultural land uses as well as intensive farming, including modern drainage schemes. The compact settlements, scattered farmsteads, minor roads, and green lanes are stated as creating a distinctive, intimate, and rural landscape.
- 3.4.5 LCT is further split into two subcategories to describe the local landscape in greater detail; LCA F1: Tollbar Settled Clay Farmlands and LCA F2: Owston to Sykehouse. Most of the Solar PV site is made up of LCA F2 (Owston to Sykehouse Settled Clay Farmlands). LCA F2 is characterised as flat, simple

landscape with views of large skies and a feeling of openness, although ground level views are often curtailed by hedgerows and trees. The land cover consists of a small-scale pastoral agricultural landscape with some hay fields and frequent mature hedges.

- 3.4.6 A small part of the Grid Connection Corridor is within LCA F1 (Tollbar Settled Clay Farmlands). LCA F1 is mainly flat landform with large to medium scale arable fields with missing or fragmented hedgerows. A network of ditches and drains sometimes form field boundaries. LCA F1 is crossed by a network of busy roads and rail corridors and includes several larger settlements which have merged with Doncaster's urban area.
- 3.4.7 The southern part of the Grid Connection Corridor is within LCT E: River Carrlands (LCT E) and LCA E2: West Don and Dun River Carrlands (LCA E2). LCT E and LCA E2 are characterised as is characterised as a medium scale agricultural landscape situated across the flat alluvial floodplains of the Rivers Don, Dun and Torne. LCA E2
- 3.4.8 A small part of the Grid Connection Corridor is within LCT H: Sandlands, Heaths and Farmlands and LCA H2: Blaxton to Stainforth Sandland Heaths and Farmland (LCA H2). LCA H is characterised as a medium to large-scale arable landscape across a flat and drained floodplain area.

Flood Risk

- 3.4.9 Based on Environment Agency flood mapping (Ref. 35) (see **ES Volume II Figure 9-4: Environment Agency Flood Map for Planning (Rivers and Seas) [EN010152/APP/6.2]**Ref. 35), the Solar PV Site is located within Flood Zone 1 (low risk of flooding) and Flood Zone 2 (medium risk of flooding) with some areas of Flood Zone 3 (high risk of flooding). Flood Zones 2 and 3 are predominantly located within the north and east of the Solar PV Site, with west and southwestern areas falling in Flood Zone 1.
- 3.4.10 The Grid Connection Corridor is located largely within Flood Zone 3, with smaller areas of Flood Zone 2 along its central section and approximately 700 m within Flood Zone 1 toward its northern extent.
- 3.4.11 The Existing National Grid Thorpe Marsh Substation is located entirely within Flood Zone 2; however, the surrounding area is designated as a water storage area with flood defences present along adjacent watercourses. Flood Zones within and adjacent to the Order limits are illustrated in **ES Volume I Chapter 7: Water Environment [EN010152/APP/6.1]**.

Agricultural land

- 3.4.12 The Natural England 'Agricultural Land Classification Yorkshire and The Humber' Map (Ref. 36) indicates that the Order Limits comprise of Grade 3 and Grade 4 agricultural land. There is a very small area of Grade 2 (very good quality agricultural land) to the south west of the Solar PV Site.
- 3.4.13 Soil surveys of the majority of the Solar PV Site were undertaken between February and May 2023, with the remaining areas surveyed during June 2024 (see **ES Volume II Figure 12-5: Agricultural Land Classification (ALC) Survey for the Solar PV Site**).
- 3.4.14 The survey showed that the Solar PV Site is predominantly located in ALC Grade 3b (moderate quality agricultural land) with four small areas of Grade

3a (good quality agricultural land); one to the north, two to the east and one to the south west (across fields SW10, SW11 and SW12).

- 3.4.15 Under the ALC framework for classifying land, Grade 2 and Subgrade 3a land is BMV land whereas Subgrade 3b is not. No Grade 1 agricultural land was identified within the Solar PV Site.
- 3.4.16 Grade 2 land comprises 1% of the land surveyed and Subgrade 3a land comprises 6% of the land surveyed to date. This is equivalent to approximately 30.2 ha of the land within the Solar PV Site (7%) being classified as BMV land.
- 3.4.17 The full breakdown of ALC grades for the surveyed land within the Solar PV Site is presented in Table 1.

Table 1: Agricultural Land Classification Based Within the Solar PV Site

Agricultural Land Class	Total Area (Ha)	Percentage of Solar PV Site Total (%)
Grade 2	4.3	1
Subgrade 3a	25.9	6
Subgrade 3b	365.2	88
Grade 4	9.4	2
Non agricultural	11.8	3
Total	416.6	100

Source: Land Research Associates Limited (2024) Agricultural Quality of Land at Fenwick (Error! Reference source not found.) (ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report)

- 3.4.18 The Natural England ‘Agricultural Land Classification Yorkshire and The Humber’ Map (Ref. 36) indicates that the Grid Connection Corridor comprises of Grade 3 and Grade 4 agricultural land. No ALC soil survey was undertaken in the Grid Connection Corridor because there will be no above ground infrastructure in the Corridor and disruption to the soil to install underground cables would be temporary and limited to the construction phase.

Public Rights of Way

- 3.4.19 There is a network of PRoW that surround and cross the Order limits as shown on **ES Volume II Figure 2-2 [EN010152/APP/6.2]**. The PRoW network is mostly used by local residents for recreational purposes such as dog walking.
- 3.4.20 There are 12 PRoW located within or abutting the Solar PV Site. These are predominantly located in the southern section of the Solar PV Site. There are 22 PRoW located near to the Solar PV Site but do not traverse it. To the east of the Solar PV Site, there are a small number of PRoW extending between West Lane and the New Junction Canal. To the south of the Solar PV Site, there are several PRoW extending towards Moss. To the west of the Solar PV Site, there are several PRoW within Fenwick and extending adjacent to

the East Coast Main Line. There are no PRow across the western part of the Solar PV Site, between Fenwick Lane and the River Went (old course).

- 3.4.21 There are no national trails or national cycle routes within the Solar PV Site. National Cycle Route 62 is the nearest national cycle route, approximately 1.6 km west of the Solar PV Site. The route connects Fleetwood on the Fylde region of Lancashire with Selby in North Yorkshire.
- 3.4.22 The Trans Pennine Trail runs through the Grid Connection Corridor by Thorpe in Balne. The trail intersects the Grid Connection Corridor on Thorpe Lane and follows the road network north along Marsh Road and Moss Lane before heading east along Willow Bridge Lane towards the New Junction Canal. The trail then heads north before turning west through Sykehouse and Topham to the north east of the Solar PV Site.

3.5 Planning History

- 3.5.1 **ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1]** and the relevant technical chapters of the ES [EN010152/APP/6.1] assess the cumulative impacts of the Scheme with other schemes. A search of cumulative developments has been undertaken as part of this assessment and has involved establishing a 'long list' of other developments and local plan allocations within a 5 km 'zone of influence' (Zol).
- 3.5.2 Developments included in the initial long list were searched for by reviewing the planning databases held by the Planning Inspectorate, City of Doncaster Council, North Yorkshire Council and East Riding of Yorkshire Council, including:
- DCO applications for NSIPs in England, contained in the Register of Applications on the National Infrastructure Planning website (Ref. 37).
 - Local authority planning applications that represent 'major developments', the definitions and thresholds for which are set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015 (Ref. 38)
 - Any major development projects being progressed through other statutory procedures;
 - Allocations identified in the adopted and emerging development plans of the local planning authorities; and
 - Other relevant development plans and projects
- 3.5.3 A 'short list' of developments within or adjacent to the Order limits was agreed with City of Doncaster Council and are shown on Figure 3-2. As the Order limits and surrounding land is largely agricultural, the relevant planning history is not extensive. The 'short list' of other developments which are considered within the Environmental Statement as they may have a cumulative effect are set out below in Table 2.

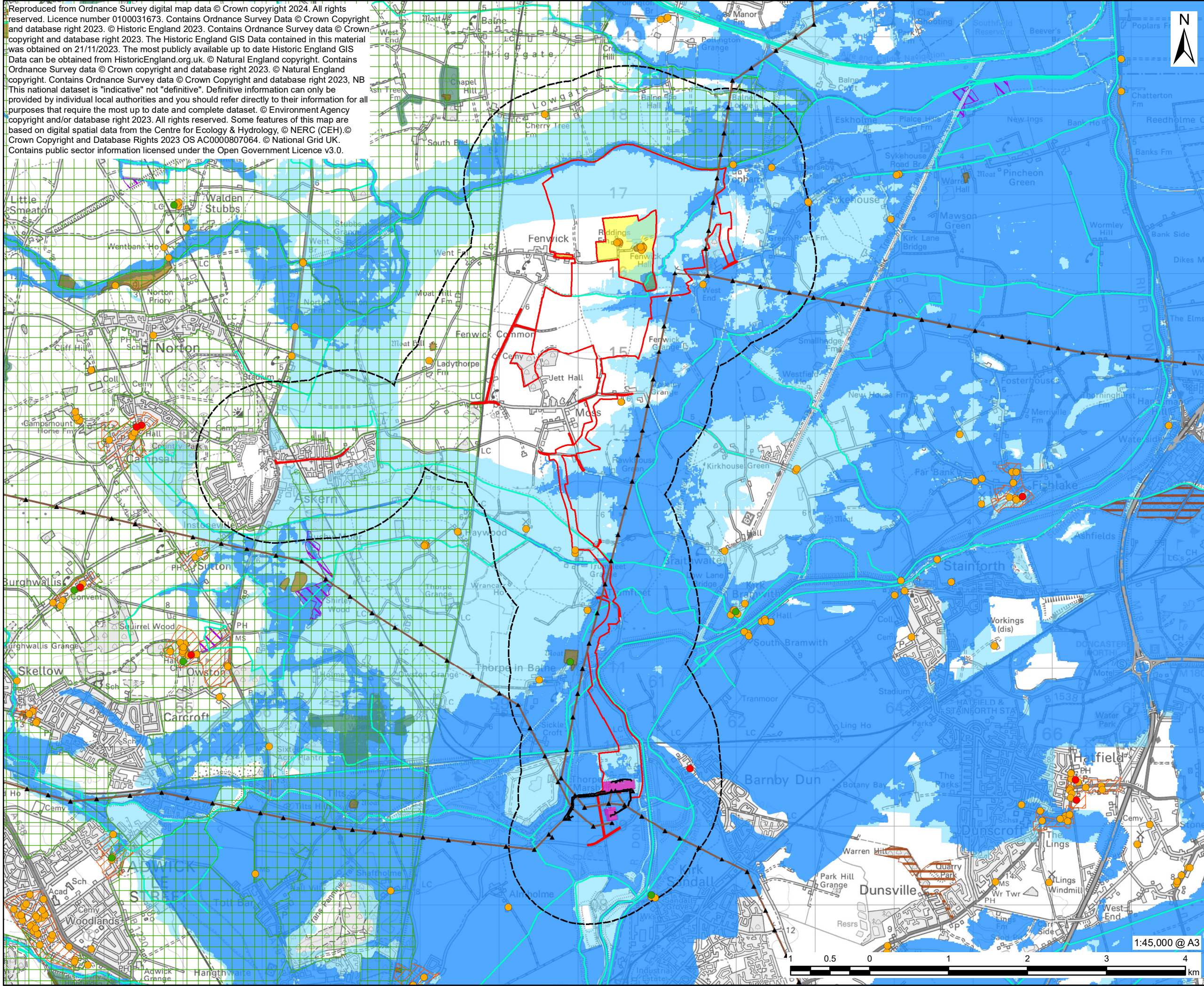
Table 2: Short List of Other Developments

Application Reference	Applicant	Description	Development Type	Distance from the Scheme (Approximate at Closest Point)	Status	Reason for Selection for cumulative assessment
City of Doncaster Ref. 23/00537/FULM	Thorpe Marsh Green Energy Hub Ltd	Reclamation through construction and operation of Energy Hub incorporating Battery Energy Storage, Substation, and associated Infrastructure, including earthworks to existing material and to provide development platform and construction of railhead.	Energy	0 km- Immediately west of the Grid Connection Point at Existing Thorpe Marsh substation.	Awaiting decision	Due to the nature and proximity of the development and potential for temporal overlap.
City of Doncaster Ref. 23/01241/FULM	Enso Green Holdings I Limited	Installation of underground cable.	Energy	0 km- Immediately east of the Grid Connection Point at Existing Thorpe Marsh substation.	Granted (19 September 2023)	Due to the nature and proximity of the development and potential for temporal overlap.
City of Doncaster Ref. 21/02567/FULM	Enso Green Holdings I Limited	Installation of a 49.9 MW solar farm and battery storage facility with associated infrastructure on a 133.52 ha site.	Energy	0 km- Immediately east of the Grid Connection Point at Existing Thorpe Marsh substation.	Granted (15 March 2022)	Due to the nature and proximity of the development and potential for temporal overlap.

Application Reference	Applicant	Description	Development Type	Distance from the Scheme (Approximate at Closest Point)	Status	Reason for Selection for cumulative assessment
City of Doncaster Ref. 22/01536/FUL and 22/01537/LBC	Miles	Demolition of Grade II listed 'Lily Hall' and erection of one replacement residential farmworker's dwelling and associated works.	Heritage	0.2 km	Granted (17 November 2023)	Due to proximity of the development in conjunction with the Scheme and the heritage setting, and potential for temporal overlap.
City of Doncaster Ref. 23/01746/FULM	Nel Nicholson	Installation of a 180 MW battery energy facility and association works on a 3.70 ha site.	Energy	0.5 km	Granted (30 April 2024)	Due to the scale, nature and proximity of the development and potential for temporal overlap.
City of Doncaster Ref. 19/03034/FULM	Carbon Action Ltd/Pilkington UK Ltd	Excavation of approximately 4 million tonnes of by-product material comprising mostly silica sand and also soda lime glass and iron oxides (also known as burgy) from previous glass manufacturing and the reinstatement of the flood plain, creating new habitats.	Industrial	0.6 km	Awaiting decision	Due to the scale, nature and proximity of the development and potential for temporal overlap.

Application Reference	Applicant	Description	Development Type	Distance from the Scheme (Approximate at Closest Point)	Status	Reason for Selection for cumulative assessment
City of Doncaster Ref. 20/01774/TIPA	BH Energy Gap (Doncaster) Ltd	The construction of an energy recovery facility involving the thermal treatment of residual waste and associated infrastructure including engineering, access, landscape, ground and landscaping works.	Energy	1.7 km	Granted (16 August 2022)	Due to the nature and proximity of the development and potential for temporal overlap.
City of Doncaster Ref.23/01082/SCR E	Novus Renewable Services Limited	Request for a screening opinion in relation to a joint solar farm and energy storage development on approximately 61.7 ha located off The Balk, Almholme, Doncaster.	Energy	1.7 km	Screening Opinion (04 July 2023)	Due to the potential scale and nature of development and possible overlap in construction phases should a planning application be submitted and approved.
City of Doncaster Ref. 08/01077/OUTA	Yorkshire Choice Homes Construction	Outline application for mixed use redevelopment of land at and to the south of Askern Saw Mill comprising the erection of up to 220 dwellings, up to 310sqm of Class A1 use, up to 310sqm of Class A3 use, up to 560sqm of Class A4 use, up to 1400sqm of Class B1(c) use, up to 8550sqm of Class B2 use and setting	Residential	2.9km	Granted (11 July 2013)	Due to the nature and proximity of the development and potential for temporal overlap.

Application Reference	Applicant	Description	Development Type	Distance from the Scheme (Approximate at Closest Point)	Status	Reason for Selection for cumulative assessment
		out of Public Open Space and a locally equipped area of play and retention of 3.81ha of open storage area in B8 use and existing building on approx 15.17ha of land				
City of Doncaster Ref. 22/02088/FULM	P and H Maxwell	The installation of a 2.5 MW solar PV array, 0.9 MW green hydrogen plant and associated landscaping	Energy	3.9 km	Granted (11 May 2023)	Due to the nature and proximity of the development and potential for temporal overlap.



Environmental and Planning Constraints

- Listed Building - Grade I
- Listed Building - Grade II*
- Listed Building - Grade II
- Watercourse
- Site of Special Scientific Interest (SSSI)
- Local Nature Reserve (LNR)
- Conservation Area
- Ancient Woodland
- Scheduled Monument
- Green Belt
- Flood Zone 2
- Flood Zone 3

- National Grid**
- ▲ Tower
 - Overhead Line
 - Cable
 - Substation

ISSUE PURPOSE

Planning Statement

PROJECT NUMBER

60698207

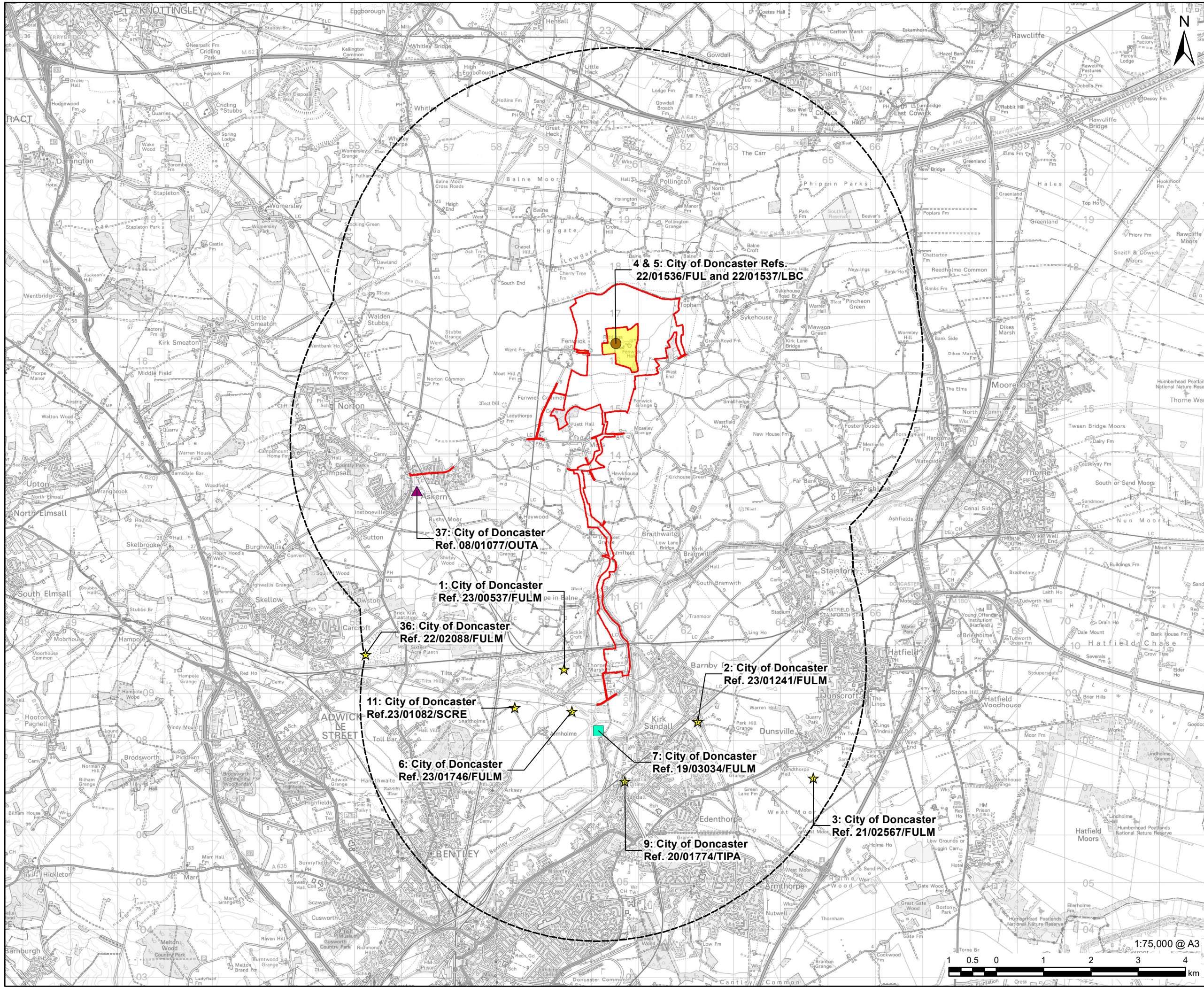
FIGURE TITLE

Environmental and Planning Constraints

FIGURE NUMBER

Figure 3-1

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4. The Scheme

4.1 Introduction

4.1.1 This section provides a summary of the main components of the Scheme, in the context of the **Draft DCO [EN010152/APP/3.1]** and the proposed construction, operational, and decommissioning activities.

Definition of the Scheme in the DCO

4.1.2 Article 3(1) of the **Draft DCO [EN010152/APP/3.1]** provides that, subject to the provisions of the DCO including the requirements in Schedule 2, development consent is granted for the “*authorised development*”.

4.1.3 For this purpose, “*authorised development*” is defined in Article 2 of the **Draft DCO [EN010152/APP/3.1]** and means “*the development described in Schedule 1 (authorised development) and any other development within the meaning of section 32 (meaning of “development”) of the 2008 Act authorised by this Order*” (Ref. 1).

4.1.4 Schedule 1 of the **Draft DCO [EN010152/APP/3.1]** defines the NSIP (Work No.1), and the associated development (Work No. 2 to Work No. 9). If consented, the DCO would permit the authorised development defined in Schedule 1 of the **Draft DCO [EN010152/APP/3.1]** within the limits shown on the **Works Plan [EN010152/APP/2.2]** This includes all works required for the construction of the ground-mounted solar photovoltaic arrays; Battery Energy Storage Systems (BESS); an On-Site substation; a 400kV underground cable connecting the Solar PV Site to the Existing National Grid Thorpe Marsh Substation; construction and decommissioning compounds works to develop operations and maintenance buildings; access provision; areas of landscaping and habitat management; and associated works.

4.1.5 The following schedules of the **Draft DCO [EN010152/APP/3.1]** and related plans define, and secure, works related to streets:

- a. Schedules 4, 5, 6 and 7 of the **Draft DCO [EN010152/APP/3.1]** and the **Streets, Rights of Way and Access Plan [EN010152/APP/2.3]** illustrates any new or altered means of access and any diversions of PRow; and
- b. Schedule 8 of the **Draft DCO [EN010152/APP/3.1]** and the **Traffic Regulation Measures Plan [EN010152/APP/2.4]** show details of temporary traffic signals and banksman control areas that may be required for the Scheme.

4.1.6 The plans set out above are certified documents as set out in Schedule 12 of the **Draft DCO [EN010152/APP/3.1]**

Flexibility

4.1.7 Paragraph 4.3.11 of NPS EN-1 (Ref. 2) recognises that “*In some instances, it may not be possible at the time of the application for development consent for all aspects of the proposal to have been settled in precise detail.*” Paragraph 4.3.12 (Ref. 2) continues that “*Where some details are still to be finalised, the ES should, to the best of the applicant’s knowledge, assess the*

likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed.”

- 4.1.8 Section 2.6 of NPS EN-3 (Ref. 3) sets out national policy with respect to flexibility in details of schemes. Paragraph 2.6.1 states *“Where details are still to be finalised, applicants should explain in the application which elements of the proposal have yet to be finalised, and the reason why this is the case.”*
- 4.1.9 NPS EN-3 (Ref. 3) at paragraph 2.10.70 also states that it is likely that flexibility will be needed in relation to schemes for solar development with respect to aspects which may include:
- a. *“The type, number and dimensions of the panels;*
 - b. *Layout and spacing;*
 - c. *The type of inverter or transformer; and*
 - d. *Whether storage will be installed (with the option to install further panels as a substitute.”*
- 4.1.10 Where other specific details of the design of the site are uncertain at the time of application, that should be made clear by the applicant with the reasons for the uncertainty given.
- 4.1.11 The extent of flexibility required by the Scheme is described in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.
- 4.1.12 To maintain flexibility in the design and layout at this stage in the process and ensure maximum effects are assessed in the EIA and considered by the Secretary of State, the Scheme has adopted the Rochdale Envelope approach in accordance with the Planning Inspectorate’s Advice Note 9 (Ref. 39) This involves specifying parameter ranges, including details of the maximum and where relevant minimum size (footprint, width, height), technology, and locations of the different elements of the Scheme where flexibility needs to be retained. The use of the Rochdale Envelope has therefore been adopted to ensure that the likely worst-case scenario is presented in the assessment of potential environmental effects from the Scheme.

Components of the Scheme

- 4.1.13 This section provides a summary of the main components of the Scheme with the corresponding Work numbers as specified in Schedule 1 of the **Draft DCO [EN010152/APP/3.1]** and shown on the **Works Plan [EN010152/APP/2.2]**. A full description of the Scheme is provided in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**. **ES Volume II Figure 2-3 Indicative Site Layout Plan [EN010152/APP/6.2]** illustrates the indicative layout for the Scheme.
- 4.1.14 The main components of the Scheme include:
- a. Ground mounted solar photovoltaic (PV) panels made up of multiple PV cells which convert sunlight into direct current (DC) electricity (Work No.1(a));
 - b. Solar PV Mounting Structures (collectively referred to as ‘tables’) (Work No.1(a));

- c. Field Stations including the following electrical equipment (Work No.1 (b)):
 - 1. Transformers to change the voltage of the electricity generated which makes it more efficient to transport over longer distance;
 - 2. Centralised inverters to convert the direct current (DC) electricity generated from the solar PV panels into alternating current (AC); and
 - 3. Switchgear, protection and control equipment;
 - 4. String inverters, which would be standalone (located parallel to or at end of the Solar PV Mounting Structures), if centralised inverters are not used;
- d. On-Site Substation (Work No.3) which would:
 - i. Receive the electricity from Field Stations and BESS and step up the voltage from 33 kV to 400 kV ready to be exported to the Existing National Grid Thorpe Marsh Substation via the 400 kilovolt (kV) Grid Connection Cables either along the Grid Connection Corridor or via a Grid Connection Line Drop connecting into the existing on-site 400 kV overhead line tower (pylon);
 - ii. Receive excess electricity generated by the Solar PV Panels and send it to BESS for storage; and
 - iii. Import excess electricity from the grid via the 400 kV Grid Connection Cables, step down the voltage from 400 kV to 33 kV and send it to BESS for storage until it is exported at times of peak demand assisting in the balancing of the grid and wider NETS;
- e. BESS (Work No.2) – individual BESS Containers, string inverters used in conjunction with 64 containerised Medium Voltage Power Station (MVPS) units consisting of transformers and switchgear, containerised or open sided containerised units comprising inverters, transformers and switchgear; underground power and control cabling; and a main control point for the supervision and management of the BESS equipment located within the Control Building;
- f. 400 kV and associated cables (Work No.4 and Work No.5(b)) (the Grid Connection Cables or Grid Connection Line Drop Cables) installed between the On-Site Substation to the Existing National Grid Thorpe Marsh Substation along the Grid Connection Corridor or via a Grid Connection Line Drop connecting into the existing on-site 400 kV overhead line tower. The Grid Connection Corridor for the Grid Connection Cables has an average width of 100 m with wider areas, for example, to allow additional working area for Horizontal Directional Drilling (HDD) or narrows to avoid sensitive receptors such as habitat designations;
- g. Operations and Maintenance Hub (Work No.7) - a containerised unit providing welfare, office accommodation and facilities for maintenance and storage throughout the operation and maintenance phase of the Scheme. An existing agricultural building would be used for storage;
- h. Fencing and security measures (e.g., lighting and CCTV) (Work No.5);
- i. Accesses including tracks and visibility splays (Work No.5 and Work No.8);

- j. Construction and decommissioning laydown areas (Work No. 4, Work no.5 and Work No. 6);
 - k. Areas of habitat management (Work No. 9); and
 - l. Associated works including cabling, landscaping and biodiversity measures, earthworks, paths and related signage, hardstanding and parking areas, drainage works, boundary treatments, private tracks and construction compounds (Work No. 5).
- 4.1.15 Further details regarding the Scheme and the process that has led to its design are discussed within the **Design and Access Statement [EN010152/APP/7.2]**. The **Outline Design Parameters Statement [EN010152/APP/7.4]** also provides the guiding parameters for the detailed design of the Scheme and is secured by a requirement in the **Draft DCO [EN010152/APP/3.1]**.

4.2 Construction Activities

Overview

- 4.2.1 A detailed description of the construction activities that are likely to be required is set out **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**.
- 4.2.2 Subject to being granted development consent and following a final investment decision, the earliest construction could start is in 2028. Construction of the Solar PV Site and Grid Connection Cables is anticipated to start in tandem. The Grid Connection Cables would require approximately 12 months, and the construction of the Solar PV Site would require an estimated 24 months, with the operation and maintenance phase anticipated to commence in 2030. Modifications at the Existing National Grid Thorpe Marsh Substation or construction of the cable connection and cable sealing end compound for the Grid Connection Line Drop to accommodate the Scheme will be carried out by National Grid under the terms of the Scheme's grid connection agreement.
- 4.2.3 Installation of cabling will use a mix of trenched and trenchless crossing techniques depending on ground conditions and environmental sensitivities. Trenchless crossings would likely be undertaken using Horizontal Directional Drilling (HDD).
- 4.2.4 A Construction Environmental Management Plan (CEMP) will be implemented to manage the environmental impacts of construction activities. This is secured by requirement 11 in Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**. The Applicant has produced a **Framework CEMP [EN010152/APP/7.7]** which is submitted with the DCO Application and the final CEMP will need to substantially accord with this.

Construction Staff

- 4.2.5 Based on the Applicant's experience of other similar sized solar projects, it is currently estimated that the Scheme would generate an average of 200 gross direct Full Time Equivalent (FTE) jobs on-site per day during the construction phase, assuming the worst-case, two-year construction timeline. The size of the workforce is based on the activities required and

would fluctuate during this period, therefore, being both higher and lower than average at times.

- 4.2.6 The peak construction workforce (in 2028, when construction activities are likely to include construction of the On-Site Substation, Grid Connection Corridor or Line Drop, and solar PV infrastructure) is estimated to be 250 FTE jobs per day. This may represent an overestimate of the maximum number of jobs during peak construction (as it represents a realistic 'worst case' assumption to allow the assessment of traffic impacts) and this has been accounted for in the technical assessments as relevant, such as in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**.

Construction Hours of Work

- 4.2.7 The core construction working hours are defined as:
- a. Monday to Friday from 07.00 to 19.00 (daylight hours permitting);
 - b. Saturday from 07.00 to 13.00 (daylight hours permitting); and
 - c. No Sunday or Bank Holiday working unless another construction time cannot be practicably accommodated or in an emergency.
- 4.2.8 Emergency working may extend beyond the timescales quoted above. For these purposes, "emergency" means a situation where, if the relevant action is not taken, there will be adverse health, safety, security or environmental consequences that in the reasonable opinion of the undertaker would outweigh the adverse effects to the public (whether individuals, classes or generally as the case may be) of taking that action.
- 4.2.9 Working hours would be shortened if working would necessitate artificial lighting and, therefore, the working day would be shorter in the months with reduced daylight hours. It is not possible to avoid working over winter due to the length of the construction programme. However, cabling and groundworks would be prioritised during the drier summer months, where practicable.
- 4.2.10 As an exceptional activity, HDD may require 24-hour working, for example to cross the Thorpe Marsh Drain flood defence crossing. 24-hour working is to be agreed in advance with the relevant Local Planning Authority (City of Doncaster Council).
- 4.2.11 Noisy work near residential properties, such as use of power tools, would be limited to between 08.00 and 18.00 from Monday to Friday and 08.00 to 13.00 on Saturdays.
- 4.2.12 Additionally, quiet non-intrusive works using electric hand tools only, such as the installation of Solar PV Panels may take place over longer periods during the summer and other quiet non-intrusive works such as electrical testing, commissioning and inspection may take place over longer periods throughout the year.

Construction Traffic, Plant and Site Access

- 4.2.13 Construction traffic and Site access is further discussed in **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]**.

- 4.2.14 **A Framework Construction Traffic Management Plan (CTMP)** [EN010152/APP/7.17] has been prepared as part of the DCO Application. This will be updated to a detailed CTMP which would be produced by the appointed construction contractor and agreed with the relevant Local Planning Authority (City of Doncaster Council) following the grant of the DCO and prior to the start of construction. Production of the detailed CTMP is secured through requirement 13 in Schedule 2 of the **Draft DCO** [EN010152/APP/3.1]. The aim of the CTMP is to minimise the impact of construction traffic on local communities by managing traffic using the local highway network, and where required/possible implementing mitigation. The **Framework CTMP** [EN010152/APP/7.17] defines information such as the routes that construction traffic must take, any timing restrictions in relation to the use of certain routes, and the penalties to contractors if the CTMP is not adhered to.
- 4.2.15 Currently existing accesses are proposed to be used for construction access to the Solar PV Site where this is practicable. Accesses have been designed to ensure there are no impacts on veteran and mature trees as a result of vehicles movements, however, there may be localised removal of sections of hedgerows where required. **ES Volume II Figure 2-3: Indicative Site Layout Plan** [EN010152/APP/6.2] illustrates the existing and proposed accesses.
- 4.2.16 At this stage, based on the preliminary construction material and equipment requirements, it is anticipated that as a worst case there could be up to a total of 18 HGV deliveries per day (including waste movements). This results in 36 HGV two-way movements (18 in and 18 out) per day at peak construction. This allows for the delivery of all components of the Scheme, including the delivery of concrete blocks for the solar PV panels in areas of archaeological mitigation where required. All HGVs will enter the Solar PV Site via the main site access off Moss Road.
- 4.2.17 It is anticipated that goods would be delivered to the main construction compound within the Solar PV Site and then distributed to the point of need within the Solar PV Site using a lighter vehicle tractor and trailer as required. To access the northern part of the Solar PV Site the tractor and trailer will be required to travel on a short section of Lawn Lane, using existing accesses. Appropriate traffic management measures will be in place on Lawn Lane to ensure the safety of road users.
- 4.2.18 There would be a maximum of five AIL deliveries (10 two-way movements) for the delivery of the 400 kV/33 kV transformer to the On-Site Substation, which also considers the potential for transformer failure by the delivery of a spare transformer that would be stored on site. The latter is a very rare occurrence and therefore the AIL trip generation is considered to be a worst case in the rare event that a further replacement should be necessary.
- 4.2.19 The current estimate is that 250 FTE staff would be on site each day at the peak of construction and the assessment presented in **ES Volume I Chapter 13: Transport and Access** [EN010152/APP/6.1] considers that workers would travel in a private car or use shuttle minibus services which would be provided to transfer staff to/from key settlements where workers would be expected to originate. This would require a total of 32 minibus movements (two-way) – 8 arriving and 8 departing in the AM (16 two-way) and 8 arriving and 8 departing in the PM (16 two-way) per day, and 248 car movements

(two-way) – 124 arriving in the AM and 124 departing in the PM per day for staff transportation at the peak of construction. The majority of construction workers will arrive to the Solar PV Site via Fenwick Common Lane / Hags Lane and will exit the Solar PV Site via the main construction access off Moss Road. Indicative information on the origins of construction worker traffic (i.e. where construction workers are likely to travel to and from) is also presented in **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]**.

- 4.2.20 To prevent nuisance and potential obstruction/restriction of free traffic flows caused by vehicles parked around the Solar PV Site, limited (but sufficient) on-site car parking to accommodate the expected parking demand of construction staff using private vehicles to travel to and from the Solar PV Site (commuting) would be provided within the Solar PV Site (and parking will be provided at temporary construction compounds for the Grid Connection Corridor). Parking on public roads within a defined radius of the Solar PV Site would not be permitted. This has been further set out in **ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP/6.3]**.

Construction Compounds and Lighting

- 4.2.21 Temporary construction compounds comprising parking, storage, staff welfare and waste management would be located within the Solar PV Site and Grid Connection Corridor. In the Solar PV Site, these would include one main temporary construction compound located south of Hags Lane and west of the BESS Area, and two satellite construction compounds located in the northwest and northeast, respectively. Indicative locations are shown in **ES Volume II Figure 2-4: Location of Temporary Construction Compounds and Indicative HDD Areas [EN010152/APP/6.2]**.
- 4.2.22 Within the Solar PV Site, temporary construction compounds will be created and 'built-out' as the solar installation progresses. In addition to the main construction compound and the two satellite compounds, smaller short-term use construction compounds will be located across the Solar PV Site. The compounds will be approximately 150 m by 150 m and could contain a site office, mobile welfare units, generators, canteen facilities and a fenced area for storage and waste containers.
- 4.2.23 Two construction compounds would be located within the Grid Connection Corridor, one in a field east of the junction between Trumfleet Lane and Brick Kiln Lane and the other in the field northeast of Marsh Road adjacent to Engine Dike. The precise location and dimensions of the compounds are to be determined. Indicative locations are shown in **ES Volume II Figure 2-4: Location of Temporary Construction Compounds and Indicative HDD Areas [EN010152/APP/6.2]**. Appropriate buffers from watercourses and other sensitive features are proposed and will be secured via the CEMP.
- 4.2.24 At a number of the grid connection access points there will be 50 m by 50 m roving compounds and lay-down areas. The compound area footprint will take into consideration topography, drainage and heritage and environmental constraints. The compounds will allow construction vehicles to turn off the public highway and park safely. They will include parking bays, portacabins, unloading and storage areas and power generators. Upon completion of construction, the compound areas will be removed and the land reinstated.

- 4.2.25 To establish the compounds (except for roving compounds), topsoil in the compound footprint will be stripped and stored in accordance with the Soil Management Plan which is required to be in substantial accordance with the **Framework Soil Management Plan [EN010152/APP/7.10]**. The hardstanding would then be formed of compacted stone (Type 1 aggregate) over appropriate geotextile. The temporary construction compounds including roving compounds may utilise track mats instead of compacted stone, given they will be utilised for shorter periods of time.
- 4.2.26 Construction compounds will be fenced with temporary (Heras style) fencing where required. Trees within compound locations will be fenced off along their root protection areas and protected as exclusion zones.
- 4.2.27 During the construction phase additional infrared cameras and motion sensors will be installed at construction compounds mounted at approximately 5 m height to provide security. The **Framework Construction Environmental Management Plan [EN010152/APP/7.7]** outlines the lighting strategy, with the detailed construction lighting design to be secured by requirement 12 in Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**.
- 4.2.28 The lighting strategy for the operation and maintenance phase is set out in the **Framework OEMP [EN010152/APP/7.8]**, which includes details on lighting design. During operation and maintenance, the Solar PV Site would not require artificial lighting other than during temporary periods of maintenance/repair. Task specific and fixed 'general' lighting will be used at the On-Site Substation, BESS Area and at the Operations and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions.

4.3 Biodiversity and Landscaping

- 4.3.1 **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]** sets out the broad location of key components of the Scheme alongside the provision of green infrastructure.
- 4.3.2 All solar PV panels have been sited within the existing field pattern, protecting existing vegetation and maximising the natural screening provided by field boundary vegetation. Larger infrastructure, such as the On-site Substation and BESS have been located away from residential receptors, to minimise potential visual effects. The Solar PV Site mostly avoids land abutting settlement boundaries, such as fields adjacent to Fenwick. Where this has not been possible, offsets (a minimum of 50 m) and new planting has been incorporated to retain a sense of openness whilst screening the solar PV panels. Offsets from trees and woodlands have been incorporated to ensure the health and longevity of vegetation, retaining the existing structure of the landscape (minimum offsets of 15 m from individual trees and woodland, 5 m from hedgerows and 10 m from watercourses).
- 4.3.3 The siting of Solar PV Panels and associated infrastructure seeks to minimise instances of development on both sides of any PRoW. Where development is proposed on one side of a PRoW, an offset of 15 m from the centre line has been incorporated. Where development is proposed on both sides of a PRoW, a minimum offset of 20 m either side of the centre line has been integrated (creating a 40 m wide corridor between the fence lines), The design approach on the Scheme seeks to retain existing vegetation patterns

and to plant new green infrastructure to ensuring 'gapping up' of existing boundaries.

- 4.3.4 The **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** sets out the landscape and ecological principles for how the land will be managed throughout the operation and maintenance phase following the completion of construction. A detailed LEMP will be produced by the appointed construction contractor and agreed with the relevant Local Planning Authority (City of Doncaster Council) following the grant of the DCO and prior to the start of construction. Production of the detailed LEMP is secured through requirement 6 of the DCO (see Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**).
- 4.3.5 Ecology mitigation areas and heritage buffer areas will be provided within the Solar PV Site as shown on **ES Volume II Figure 2-3 [EN010152/APP/6.2]**. There will be no solar PV and associated infrastructure installed within these areas, and the land will be managed to create high quality habitat for priority bird species; provide a setting buffer for the Scheduled Monument Fenwick Hall moated site; and preserve the ridge and furrow and preserve in situ areas of archaeological interest identified from the geophysical survey.
- 4.3.6 The working widths of any cable laying would be reinstated as soon as practicable following the completion of construction activities and in accordance with the **Framework Soil Management Plan (SMP) [EN010152/APP/7.10]**.

4.4 Operational Activities

Overview

- 4.4.1 An Operations and Maintenance Hub will be established by constructing a containerised welfare unit (maximum footprint up to 12.5 m by 2.5 m, up to 6.5 m in height) adjacent to an existing barn within Field NW08 of the Solar PV Site (see **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]**). This will provide welfare, office accommodation and facilities for maintenance activities throughout the operation and maintenance phase of the Scheme. The existing agricultural building will be used for storage and is not anticipated to require modification.
- 4.4.2 It is anticipated there would be up to two permanent staff on-site at any one time during the operation and maintenance phase, based at the Operations and Maintenance Hub. Additional staffing/visitors, such as maintenance workers and deliveries, would be ad hoc as needed. It is assumed this would equate to an average of four additional workers per month.
- 4.4.3 During operation, activity on the Solar PV Site would be restricted principally to vegetation management, equipment maintenance and servicing, ad hoc replacement of any components that fail or reach the end of their lifespan, periodic fence inspection, and monitoring to ensure the continued effective operation of the Scheme. Along the route of the Grid Connection Cables, operational activity would consist of routine inspections and any reactive maintenance such as where a cable has faulted or been damaged.
- 4.4.4 A **Framework Operational Environmental Management Plan [EN010152/APP/7.8]** sets out the general environmental principles to be followed during the operation of the Scheme. The Framework OEMP will be

used as the basis for a detailed OEMP to be produced by the appointed operation contractor and agreed with the relevant Local Planning Authority (City of Doncaster Council) following the grant of the DCO and prior to the final commissioning of any part of the Scheme. Production of the detailed OEMP is secured through requirement 12 in Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**.

Operational Traffic and Access

- 4.4.5 **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]** illustrates the existing and proposed accesses for the Scheme during operation.
- 4.4.6 Existing field accesses are proposed for the operational access where this is practicable and would reuse construction accesses. The main operational access to the Solar PV Site will be via Lawn Lane, while the access to the BESS Area and the On-Site Substation will be from Moss Road. Emergency access to the BESS Area and the On-Site Substation will be provided via Fenwick Common Lane / Hags Lane and from Moss Road; at the Fenwick Common Lane / Hags Lane access point emergency vehicles will be able to enter the Solar PV Site however all egress would be via Moss Road. Access to the Solar PV Site off West Lane will be for emergency use only.
- 4.4.7 There should be no requirement for regular HGV movements during the operation and maintenance of the Scheme. Limited use of HGVs will be required for the replacement of batteries, inverters and transformers associated with the Field Stations and the BESS. It has been assumed that during the replacement activity up to five pieces of equipment will be replaced per day (equating to 10 two-way HGV movements) over a period of several months, every ten years during operation.
- 4.4.8 Abnormal indivisible loads during the operation and maintenance phase are not anticipated due to the delivery of a spare transformer during construction that would be stored on site.
- 4.4.9 A small number of private vehicles for up to two permanent staff and ad hoc maintenance workers and visitors would use the local road network along with light goods maintenance and delivery vehicles when required.
- 4.4.10 It is anticipated that any components which are removed and replaced, other than larger equipment such as batteries and inverters described above, would be transported by transit van or similar LGV to the Scheme's storage facilities in the existing barn in Field NW08 (see **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]**). Once a sufficient volume of waste has been accumulated to make a 'load' for transport offsite, it is anticipated that these movements would also be undertaken by LGV (not by HGV).

4.5 Decommissioning Activities

- 4.5.1 A detailed description of the decommissioning activities and their assessment is provided in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**. The design life of the Scheme is 40 years with decommissioning to commence 40 years after final commissioning as secured by Requirement 18 (2) in Schedule 2 of the **Draft DCO**

- [EN010152/APP/3.1]**. Decommissioning is expected to take between 12 and 24 months.
- 4.5.2 When the operation and maintenance phase ends, all Solar PV Panels, Solar PV Mounting Structures and concrete blocks, cabling, inverters, transformers, switchgear, BESS and the containerised unit of the Operations and Maintenance Hub would be removed from the Solar PV Site and recycled or disposed of in accordance with good practice and market conditions at that time. In areas of archaeological mitigation ground conditions would be considered and mitigation measures put in place (such as bog matting) to limit ground disturbance and rutting during decommissioning activities.
- 4.5.3 It is anticipated that some areas of biodiversity mitigation and enhancement within the Solar PV Site may be left in-situ, however, the majority of the Solar PV Site would be available to be returned to its original use after decommissioning.
- 4.5.4 The future of the On-Site Substation, including associated control and metering buildings and 400 kV cables (i.e. the Grid Connection Cables or Grid Connection Line Drop cables), would be agreed with National Grid Electricity Transmission (NGET) and/or the asset owners prior to the commencement of decommissioning. It is common practice for such infrastructure to be retained and used for another purpose after the development they were originally installed to support is decommissioned. Therefore, it is possible that the On-Site Substation and Grid Connection Cables may remain in place/operational after the decommissioning phase of the Scheme. This cannot be confirmed at this time and will depend upon demand closer to the decommissioning date.
- 4.5.5 The **Framework Decommissioning Environmental Management Plan (DEMP) [EN010152/APP/7.9]** sets out the general principles to be followed in the decommissioning phase of the Scheme. A detailed DEMP would be prepared and agreed with the relevant Local Planning Authority (City of Doncaster Council), prior to the commencement of decommissioning works. Production of the detailed DEMP is secured through requirement 18 in Schedule 2 of the **Draft DCO [EN010152/APP/3.1]** and will need to be implemented as approved.

5. The Need and Benefits of the Scheme

5.1 Introduction

- 5.1.1 This section of the Planning Statement summarises the need for the Scheme and the wider benefits it will bring.
- 5.1.2 NPS EN-1 (Ref. 2) confirms at paragraphs 3.3.62 and 4.2.4 that *“there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure”*. This sets out a policy presumption in favour of critical national priority infrastructure, such as solar, to achieve energy objectives to decarbonise the energy sector by 2035 and to achieve net zero by 2050.
- 5.1.3 The urgent need for CNP infrastructure will outweigh any residual effects of such development in all but the most exceptional cases. NPS EN-1 (Ref. 2) therefore sets out a policy presumption in favour of granting development consent for nationally significant solar projects.
- 5.1.4 A detailed review of why the Scheme is urgently required at the scale and location proposed is set out in the **Statement of Need [EN010152/APP/7.3]**, which also explains how the Scheme addresses relevant aspects of established and emerging government energy and climate change policy and commitments.

5.2 The Need for the Scheme

- 5.2.1 The need, and presumption in favour of granting consent, is identified and highlighted in paragraphs 3.2.6 – 3.2.8 of NPS EN-1 (Ref. 2), which sets out that the Government has demonstrated that there is an urgent need for renewable energy infrastructure, being a CNP, and that substantial weight should be given to this need by the Secretary of State when considering DCO applications under the PA 2008 (Ref. 1). Paragraph 3.2.8 of NPS EN-1 (Ref. 2) notes that *“the Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established by this NPS”*, which further demonstrates the urgent and undisputed nature of the need for nationally significant renewable energy projects such as the Scheme.
- 5.2.2 The Government expects large scale solar generation to make an important contribution to achieving its decarbonisation requirements and legally binding climate change targets, as well as its objectives for the UK’s power system, which includes ensuring the supply of energy remains secure, reliable and affordable. NPS EN-1 (Ref. 2) sets out at paragraph 3.3.20 that solar, along with wind, is expected to be the main form of electricity generation in the Government’s targeted 2050 Net Zero energy system that is secure, reliable and affordable. It states:
- “Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar”*.
- 5.2.3 Solar development falls under the definition of CNP infrastructure under paragraph 4.2.5 of NPS EN-1 (Ref. 2) as it is classed as onshore electricity generation that does not involve fossil fuel combustion. NPS EN-1 (Ref. 2),

paragraph 3.3.63, concludes that the “*Government strongly supports the delivery of CNP Infrastructure, and it should be progressed as quickly as possible*”. For projects which qualify as CNP, such as the Scheme, paragraph 4.1.7 of NPS EN-1 (Ref. 2) sets out that “*it is likely that the need case will outweigh the residual effects in all but the most exceptional cases*”. This is because national policy acknowledges the contribution that CNP infrastructure plays in achieving the Government’s energy objectives, together with national security, economic, commercial and net zero benefits (paragraph 3.3.63 of NPS EN-1 (Ref. 2)).

- 5.2.4 A step change in the decarbonisation of the UK’s energy system is therefore required in order to meet the Government’s target to cut greenhouse gas (GHG) emissions to net zero by 2050, as supported by paragraph 2.3.3 of NPS EN-1 (Ref. 2), as the “*demand for electricity is likely to increase significantly over the coming years and could more than double by 2050 as large parts of transport, heating and industry decarbonise by switching from fossil fuels to low carbon electricity*” (Paragraph 3.3.3 of NPS EN-1 (Ref. 2)).
- 5.2.5 In short, the urgent need for renewable energy generating infrastructure, specifically solar development, at a national scale is clearly set out and supported by national policy, legislation and guidance.
- 5.2.6 The Government’s Powering Up Britain strategy, (March 2023) (Ref. 25) presents the Government’s strategy for the energy sector, stating the Government’s ambition to increase solar five-fold by 2035, with a target of 70 Gigawatt (GW) of solar to be operational in the UK by 2035. The **Statement of Need [EN010152/APP/7.3]** for the Scheme states that, to achieve the Government’s target, one solar scheme of a scale equivalent to the Scheme will need to be switched on each and every month between August 2024 and 2035.
- 5.2.7 The Conference of the Parties (COP) 28 held in Dubai between 30 November and 12 December 2023 signalled a further increase in the urgency of global action required to fight climate change. COP28 marked the beginning of the end of the fossil fuel era, therefore also marking the absolute requirement to generate energy from low carbon sources. The COP28 agreement also stated that all countries must take action now to curb emissions and not in a distant future. This is a key point, since all countries including the UK committed to update their national climate plans for COP29 and therefore must now increase their carbon reduction ambitions (Ref. 40).
- 5.2.8 In summary, through the designation of the revised Energy NPSs on 17 January 2024, the Government has confirmed the presumption in favour of granting development consent for national scale renewable energy development, such as the Scheme. Low carbon and renewable energy infrastructure is now identified as CNP infrastructure, and is urgently needed to help meet the Government’s energy objectives as set out in NPS EN-1 (Ref. 2), which include:
- a. Ensuring the system is net zero consistent;
 - b. Providing security of supply; and
 - c. Providing an affordable, reliable system.
- 5.2.9 The **Statement of Need [EN010152/APP/7.3]** concludes that in order to meet the above objectives, and bring forward CNP infrastructure as quickly

as possible, the evidence points to the development of proven technologies such as large scale solar. It also states that the Scheme will, if consented, provide an essential progression to meeting the Government's objectives of delivering sustainable development to enable decarbonisation and, by doing so, will address the climate change emergency that affects everyone's lives and the environment, by ensuring our energy supply is secure, low-carbon and low-cost.

- 5.2.10 The following sections summarise how the Scheme would meet the Government's energy objectives set out above.

Ensuring the System is Net Zero Consistent

- 5.2.11 The Government's view, as set out in NPS EN-1 (Ref. 2), is that a low-cost, net zero consistent system is likely to be composed predominantly of wind and solar.
- 5.2.12 The Scheme, along with other solar schemes, is therefore of critical importance on the path to net zero, with National Grid Electricity System Operator (National Grid ESO) future energy scenarios (FES) predicting the need for 25–40GW of operational solar capacity in the UK by 2030, or an increase of between 10 and 25GW over the next six years (Ref. 41). The National Grid ESO sets out FES (Ref. 41), which are a recognised suite of documents which indicate whether particular future pathways for electricity generation can be successful in line with current national policy targets.
- 5.2.13 The Scheme will connect to the National Energy Transmission System (NETS). This connection means that it will play its part in helping National Grid ESO manage the NETS. The Scheme will connect to an existing and available grid connection point, efficiently increasing utilisation of an existing national infrastructure asset. The power it produces will be transmitted to the NETS and will be useable nationally.
- 5.2.14 The **Statement of Need [EN010152/APP/7.3]** states that the low marginal cost and low marginal carbon emissions energy generated by the Scheme can be confidently forecast and priced into future contracts for power delivery by all market participants, thus allowing all consumers to benefit from the market price reducing effect of solar generation.
- 5.2.15 The Scheme will generate power ahead of other potential technologies (which may have longer construction timeframes or have potentially not yet been proven at scale) which will support decarbonisation only in future years and only if they are brought forward. Therefore, the Scheme will directly respond to the urgent need to deliver a large amount of renewable generation capacity quickly.
- 5.2.16 The **Statement of Need [EN010152/APP/7.3]** concludes that the meaningful and timely contributions offered by the Scheme to UK decarbonisation and security of supply, while helping lower bills for consumers throughout its operational life, will be critical on the path to net zero.
- 5.2.17 Without the Scheme, a significant and vital opportunity to develop a large-scale low-carbon generation scheme will have been missed, increasing materially the risk that decarbonisation of the energy sector by 2035 and net zero by 2050 will not be achieved.

Providing Security of Supply

- 5.2.18 The Scheme will be a substantial infrastructure asset, which if consented will deliver large amounts of cheap, secure and low-carbon electricity. In this context, the Scheme is therefore an essential stepping stone towards the future of efficient decarbonisation through the deployment of large-scale, technologically and geographically diverse low-carbon generation assets.
- 5.2.19 The inclusion of a BESS system will provide the ability to store electricity generated from the Scheme and/or import energy from the national grid at times of excess electricity generation, discharging the stored energy at times of peak demand and assisting in balancing the UK's electricity supplies.
- 5.2.20 Growth in solar capacity, alongside other renewable technologies, is expected to improve the dependability of those assets as a combined portfolio, and this is expected to reduce further any integration costs associated with such growth.
- 5.2.21 The **Statement of Need [EN010152/APP/7.3]** states that the Scheme, if approved, would contribute to an adequate and dependable UK energy generation mix, through enabling the generation of more low-carbon power from indigenous and renewable resources. Therefore, the approval, construction and operation of the Scheme will make a significant contribution to the UK's energy security needs, and the decarbonisation needs of the UK.

Providing an Affordable, Reliable System

- 5.2.22 As set out in the **Statement of Need [EN010152/APP/7.3]**, large-scale solar power decarbonises the electricity system and lowers the market price of electricity by generating power so that expensive and more carbon intensive forms of generation do not need to generate as much. In doing so, solar power delivers national decarbonisation benefits and supports consumer affordability aims, to the benefit of electricity consumers.
- 5.2.23 The **Statement of Need [EN010152/APP/7.3]** sets out that due to technological advances, solar facilities are already among the cheapest form of electricity generation in the UK and the Government's forecasts indicate that costs will continue to reduce in the future.
- 5.2.24 Scale remains important, and maximising the generating capacity of schemes improves their economic efficiency, and so brings electricity generation to the market at the lowest cost possible. Larger solar schemes, such as the Scheme, deliver more quickly and at a lower unit cost than multiple independent schemes which make up the same total capacity, bringing forward carbon reduction, energy security and economic benefits in line with the Government's energy policy.
- 5.2.25 As concluded in the **Statement of Need [EN010152/APP/7.3]** the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.

Summary

- 5.2.26 In summary, and as set out in the **Statement of Need [EN010152/APP/7.3]**, the Scheme is a leading UK large-scale solar and storage development. If consented, it will be an essential component of the UK's plan to deliver a future of efficient decarbonisation through the deployment of large-scale, technologically and geographically diverse low-carbon generation schemes and would also deliver flexibility to the UK electricity market.
- 5.2.27 The Scheme will provide infrastructure that is of critical national priority for which the presumption in favour of the granting of development consent under NPS EN-1, in accordance with Section 104(3) of the PA 2008 (Ref 1), clearly applies. Section 7 of this Planning Statement also sets out the need for and benefits of the Scheme, demonstrating that this outweighs any adverse residual impacts and that there are no policy tests which indicate that consent should be refused.

5.3 Benefits of the Scheme

Overview

- 5.3.1 The Scheme provides the following benefits which are explained further below.

Electricity Generation

- 5.3.2 The Scheme has a 237.5MW connection at the Existing National Grid Thorpe Marsh Substation. As explained in **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**, renewable energy generation from the Scheme during the first full year of operation and maintenance is estimated to be 352,766 MWh. Taking into consideration a 2% reduction in solar PV panel performance during the first year and applying a 0.45% degradation factor for each subsequent year, this gives a total energy generation figure of 12,940,146 MWh over the assessed 40-year Scheme design life.
- 5.3.3 Ofgem estimates that the typical household in Britain uses 2,700 kWh of electricity per annum (Ref. 42). Therefore, the Scheme will generate enough electricity to power approximately 120,000 homes per annum. This demonstrates the significant contribution that the Scheme will have in generating low carbon renewable electricity supporting the transition to net zero.

Decarbonisation

- 5.3.4 The benefits that the Scheme will provide in relation to decarbonisation are outlined in the **Statement of Need [EN010152/APP/7.3]** and also summarised above. **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]** estimates that the operational and maintenance carbon intensity of the Scheme is 18.39 grams of carbon dioxide equivalent per kilowatt-hour of electricity generated (gCO₂e/kWh). This carbon intensity figure is the amount of carbon generated per kWh taking into account the lifetime emissions of the Scheme associated with its operation and maintenance.
- 5.3.5 Comparing the Scheme against a gas fired Combined Cycle Gas Turbine (CCGT) generating facility (currently the most carbon-efficient fossil-fuelled

- technology available), can be assumed to operate with a representative carbon intensity of 354 gCO₂e /kWh (Ref. 43). The operational intensity of the Scheme is therefore 95% lower than that of the CCGT. Each kilowatt hour of electricity generated by the Scheme will emit 336 gCO₂e less than if it was generated by an existing gas fired CCGT generating facility.
- 5.3.6 Combining this figure with the estimated lifetime output from the Scheme indicates an overall lifetime carbon reduction, relative to the counterfactual existing CCGT, of over 4 million tCO₂e. Given that the construction and decommissioning phase emissions for the Scheme will be 542,681 tCO₂e, the breakeven period for emissions will be under 5 years of operation. Therefore, the total greenhouse gas savings for the remaining 35 years will be approximately 3.5 million tCO₂e.
- 5.3.7 The use of the BESS provides additional carbon saving opportunities. As explained in **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**, should the BESS be charged primarily from the Scheme and supplemented by grid charging, then discharged back into the grid once each day at a typical round-trip efficiency of 85% and an overall lifetime degradation rate of 80%, it is estimated to supply 13,870 GWh to the electricity grid over its 40-year design life. With the operation and maintenance carbon intensity of the Scheme at 18.39 gCO₂e/kWh (or 0.018 tCO₂e/MWh) compared to 0.460 tCO₂e/MWh for a CCGT, the use of the Scheme's BESS for grid balancing purposes could still deliver a significant carbon saving of approximately 4.1 million tonnes CO₂e over its design life.
- 5.3.8 To summarise, greenhouse gas emission savings are expected to be achieved throughout the lifetime of the Scheme compared to other fossil fuel energy generation types. It is therefore considered that the greenhouse gas emissions during construction, operation and decommissioning of the Scheme can be 'offset' by the net positive impact of the Scheme on greenhouse gas emissions and the UK's ability to meet its climate change targets.
- 5.3.9 The greenhouse gas saving achieved throughout the lifetime of the Scheme demonstrates the role solar energy generation and storage has to play in the transition to, and longer-term maintenance of, a low carbon economy. Without low-carbon energy generation projects such as the Scheme, the average grid greenhouse gas intensity will not decrease as is projected, which could adversely affect the UK's ability to meet its carbon reduction targets.

Ecological Enhancements

- 5.3.10 The **Framework LEMP [EN010152/APP/7.14]** submitted in support of the DCO Application sets out the parameters for delivering the indicative landscape and ecological enhancements as illustrated by the Indicative Landscape Masterplan at Appendix A of the **Framework LEMP [EN010152/APP/7.14]**. A requirement forms part of the **Draft DCO [EN010152/APP/3.1]** stating that no part of the authorised development shall commence until a LEMP for that part has been submitted to and approved in writing by the relevant local planning authority and that the LEMP must be substantially in accordance with the Framework LEMP.

- 5.3.11 New green infrastructure elements will be established, and habitat corridors enhanced through the Solar PV Site. These will improve wildlife connectivity, elevate landscape quality, and enhance visual amenity.
- 5.3.12 Large areas of modified and neutral grassland will be provided beneath the solar panels and across the broader Solar PV Site in order to boost biodiversity and create new habitats. This will also help to ameliorate soil conditions after long-term agricultural practices. This includes a new green corridor that follows the existing Fleet Drain through the northeast of the Solar PV Site.
- 5.3.13 Areas of created and enhanced grassland will be of benefit to species reliant on such habitats, such as skylark. Additionally, the area of habitat enhancement through the central portion of Solar PV Site will be left free of panels and other infrastructure which will provide permanent grassland and seed rich habitat for birds that prefer such habitats during the non-breeding season.
- 5.3.14 The Scheme will also increase and enhance the existing hedgerow network, with gapping up and planting of native hedgerows with hedgerow trees, providing better connectivity and creating new valuable habitats.
- 5.3.15 Land adjacent to the River Went within the Solar PV Site will be conserved and enhanced in order to maintain the existing open riparian mosaic and provide further benefits to biodiversity. This will include the creation of scrapes which will enhance the habitat currently available, increasing the area of seasonal standing water and habitat diversity.
- 5.3.16 Habitat boxes will be installed on suitable features (buildings and trees) within the Order limits to provide additional nesting and roosting opportunities for bats and a range of bird species, including barn owl.
- 5.3.17 Reptile and amphibian hibernacula/refugia will be provided utilising logs created during the removal of trees, through small bunds over logs/inert rubble, or piles of vegetation clippings.
- 5.3.18 Additional enhancement for terrestrial invertebrates will include the planting of blackthorn hedges to create food plants for brown hairstreak which have been recorded on the Solar PV Site.
- 5.3.19 The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Ref. 44). A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

Employment Generation

- 5.3.20 **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]** states that during construction, the Scheme will support, on average, 225 total net jobs per annum. Of these, 102 jobs per annum are expected to be taken up by residents within a 60-minute drive time from the Order Limits.
- 5.3.21 The jobs created will be in the renewable energy sector, specifically relating to solar installation, but also electricity transmission. As such, they will

contribute to the development of skills needed for the UK's transition to Net Zero by 2050 (as required by the Climate Change Act 2008 (2050 Target Amendment Order) 2019 (Ref. 32) and described within the Net Zero Strategy: Building Back Greener (Ref. 28). The indirect jobs include those created within the supply chain and therefore reflect the opportunities for low carbon industries to contribute to the Scheme.

- 5.3.22 The Applicant is also committing to implementing a Skills, Supply Chain and Employment Plan for the construction of the Scheme which will maximise and pro-actively expand the economic benefits of the Scheme for the local community. A **Framework Skills, Supply Chain and Employment Plan (SSCEP) [EN010152/APP/7.15]** accompanies the DCO Application. This will be secured by requirement 16 of the DCO (see Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**), confirming that no part of the authorised development shall commence until a full SSCEP has been submitted to and approved by the relevant local planning authority. The SSCEP will need to be substantially in accordance with the **Framework SSCEP [EN010152/APP/7.15]**. The **Framework SSCEP [EN010152/APP/7.15]** sets out delivery mechanisms including the number of apprenticeships funded/taken up, the number of vocational qualifications achieved, the number of schools engaged, and events delivered, increased awareness of careers, measuring the proportion of local workforce employed from the local area, measures to maximise diversity of the workforce, business and networking support and the number/value of contracts secured by local businesses.
- 5.3.23 Similar employment benefits are also anticipated for the decommissioning phase.

Economic Benefits

- 5.3.24 As set out in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**, Gross Value Added (GVA) per construction worker in the Yorkshire and the Humber is estimated to be £63,314 per head. By applying this figure to the gross direct construction workers generated by the Scheme, it is estimated that construction would contribute approximately £12.6 million to the national economy, of which £5.7 million would be within a 60-minute drive time from the Order limits.
- 5.3.25 Construction activities associated with the Scheme will provide access to employment in this phase, which will provide a beneficial health impact to these workers. There is evidence that employment matters to health, not only from an economic perspective, but also in terms of quality of life. Good quality work protects against social exclusion through the provision of income, social interaction, identity and purpose which the Scheme will help to deliver through its construction phase. Similar economic benefits are also anticipated for the decommissioning phase.

6. Planning Appraisal

6.1 Introduction

- 6.1.1 This section presents an appraisal of the Scheme's compliance with the main relevant policy requirements that have been identified following a review of national and local planning policy and legislation, as outlined in Section 2 of this Planning Statement.
- 6.1.2 **Appendix A: NPS Accordance Tables** and **Appendix B: Local Policy Accordance Tables**, set out an analysis of compliance with the specific policies of the suite of designated National Policy Statements for Energy and adopted local planning policies, respectively.
- 6.1.3 The appraisal considers the construction, operation and decommissioning of the Scheme.

6.2 Meeting the Renewable Energy Need

Planning Policy Context

- 6.2.1 Section 2 and 3 of NPS EN-1 (Ref. 2) discuss the need for energy NSIPs. These explain the context and drivers for the identified need for nationally significant energy infrastructure. NPS EN-1 (Ref. 2) and EN-3 (Ref. 3) recognise that solar development is proven to be beneficial on a large scale and is therefore a technology identified as being required at a nationally significant scale. NPS EN-5 (Ref. 4) sets out the need for the electricity network to be able to support the development of CNP infrastructure, such as solar. The following principles are outlined in the three designated Energy NPSs:
- a. The need to secure adequate energy supply to accommodate projected increased national energy use;
 - b. The need to replace electricity generation capacity that will be decommissioned;
 - c. The need to reduce greenhouse gas emissions to meet decarbonisation commitments by 2050;
 - d. The commitment that all electricity will come from low carbon sources by 2035;
 - e. The need for more electricity capacity and resilience; and
 - f. The need to diversify energy supply reduce reliance on imports of fossil fuels.
- 6.2.2 NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3) reflect up-to-date national planning policy, having come into effect in January 2024. These NPSs set out national planning policy with regard to the delivery of energy generating technologies that are low carbon and ensuring that the UK is more "*energy independent, resilient and secure.*"
- 6.2.3 Paragraph 2.3.3 of NPS EN-1 (Ref. 2) provides that, to ensure the supply of energy always remains secure, reliable, affordable, and consistent with meeting net zero carbon emissions by 2050, "*a step change in the decarbonisation of our energy system*" will be required.

6.2.4 NPS EN-1 (Ref. 2) paragraph 3.1.1 recognises the need for significant amounts of new large-scale energy infrastructure to meet the government's energy objectives and that the government considers that the need for such infrastructure is urgent. Paragraph 3.1.2 states that *"it will not be possible to develop necessary amounts of such infrastructure without some significant residual adverse impacts"*. This statement is set out within each technology specific NPS as, due to their scale, it is rarely possible to deliver NSIPs without some significant effects. It is acknowledged within paragraph 3.1.2 of NPS EN-1 that projects should demonstrate how effects are minimised through the application of Parts 4 and 5, but that this does not remove the presumption in favour of granting consent.

6.2.5 Paragraphs 3.2.6 to 3.2.8 are set out in bold within NPS EN-1 (Ref. 2) and state that:

"The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part.

In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008.

The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS."

6.2.6 Whilst NPS EN-1 Paragraph 3.3.12 (Ref. 2) recognises the role that smaller scale renewable energy developments play in contributing to achieve the Government's objectives and commitments for the energy system, it explains that this alone will not be sufficient and that *"the government does not believe they will replace the need for new large-scale electricity infrastructure to meet our energy objectives"*. Further to this, paragraph 3.3.12 goes on to set out that large-scale centralised energy generation facilities offer a number of economic and other benefits, such as more efficient bulk transfer of power, which enables surplus generation capacity in one area to be used to cover shortfalls elsewhere.

6.2.7 Paragraph 3.3.20 of NPS EN-1 (Ref. 2) sets out that the Government expects solar, alongside wind, to form the majority of the generation capacity needed for a net zero, secure, reliable and cost-efficient system:

"Wind and solar are the lowest cost ways of generation electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar".

6.2.8 Paragraph 3.3.62 of NPS EN-1 (Ref. 2) confirms that: *"Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure."* CNP infrastructure is defined in paragraph 4.2.5 of NPS EN-1 (Ref. 2), and includes all onshore generation that does not involve fossil fuel combustion. This includes solar infrastructure such as the Scheme.

- 6.2.9 Paragraph 3.3.63 of NPS-EN-1 (Ref. 2) goes on to state that the CNP for low carbon infrastructure will *“in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy.”* This confirms that, with respect to this policy test, the bar is high, where the impacts of a CNP infrastructure scheme would be required to outweigh need and benefits overall in order for consent to be declined. NPS EN-1 paragraph 3.3.63 also adds that *“Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible”*.
- 6.2.10 Paragraph 4.1.3 of NPS EN-1 (Ref. 2) sets out the presumption in favour of granting consent to applications for energy NSIPs that are identified as CNP infrastructure, due to the level and urgency of need for such infrastructure, *“unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused”*.
- 6.2.11 Paragraph 4.1.7 of NPS EN-1 (Ref. 2) goes on to state that *“For projects which qualify as CNP Infrastructure, it is likely that the need case will outweigh the residual effects in all but the most exceptional cases.”* The paragraph notes that the presumption does not apply to impacts which present unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero.
- 6.2.12 Paragraph 4.2.16 of NPS EN-1 (Ref. 2) sets out that CNP infrastructure is to be treated as if it has met any tests which are set out within the NPS or any other planning policy, which requires a clear outweighing of the harm, exceptionality or very special circumstances, as the starting point for the Secretary of States decision making.
- 6.2.13 At the local level, City of Doncaster Council has declared a climate and biodiversity emergency and has committed to becoming carbon neutral by 2040 (Ref. 44). This declaration is endorsed by the Doncaster Local Plan (Ref. 16) which, as one of its stated objectives, seeks to:
“reduce dependency on fossil fuels to reduce locally produced greenhouse gas emissions and minimise the impacts of climate change in line with the Sheffield City Region and encourage the transition to a low carbon borough”.
- 6.2.14 Policy 58 (Low Carbon and Renewable Energy Strategic Policy) of the Doncaster Local Plan (Ref. 16) aims *“to increase the supply of low carbon and renewable energy generated in the Borough”*, giving priority to *“heat or power generation from light, water, waste and other low carbon heat sources”* (inter alia).
- 6.2.15 In summary, the urgent need for renewable energy infrastructure to address the causes of climate change is acknowledged at both local and national level. In particular, NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and other recent Government energy and climate change policy and evidence highlight the significant urgency of bringing forward renewable energy infrastructure and that actions to address this urgency need to be accelerated. The **Statement of Need [EN010152/APP/7.3]** explains this position in greater detail.

Appraisal

- 6.2.16 The main objective of the Scheme is to generate a significant amount of renewable and low carbon electricity for an operation and maintenance phase of 40 years. Section 5 of this Planning Statement and the **Statement**

of Need [EN010152/APP/7.3] explain that the Scheme will deliver a significant amount of low carbon energy but also achieve this in a short amount of time, compared to other forms of energy generation infrastructure, since ground mounted solar developments are proven at scale and are relatively quick to construct.

- 6.2.17 Over its 40-year lifetime, the Scheme is expected to generate enough electricity to power approximately 120,000 homes per annum. The Scheme will help bring forward carbon reduction and economic benefits in line with government policy and help to deliver the Government's objectives and commitments for the development of a secure, affordable and low carbon energy system. Therefore, the Scheme will contribute significantly and quickly to meeting the Government's ambitions of 70GW of solar by 2035 and will be in accordance with the designated Energy NPSs in delivering CNP infrastructure where there is a presumption in favour of granting consent.
- 6.2.18 The environmental impacts of the Scheme have been assessed as reported in the **ES [EN010152/APP/6.1-6.3]** and are discussed in this Planning Statement. Overall, with the mitigation hierarchy having been followed, and appropriate mitigation implemented, and relative to the large scale nature of the Scheme, it is expected to have limited and localised residual significant adverse effects during its 40-year operation. None of the effects relate to the exceptions listed in paragraph 4.1.7 of NPS EN-1 (Ref. 2) and therefore the presumption cited in this paragraph stands. Therefore, the limited and localised effects are outweighed by the significant national benefits that the Scheme will provide, as supported by the general presumption in favour of granting consent for CNP infrastructure set out in NPS EN-1 (Ref. 2), which states that the urgent need for CNP infrastructure will outweigh residual impacts not capable of being addressed through mitigation. In addition, as explained further in this section of the Planning Statement, there are no specific and relevant policies set out in the relevant NPSs which clearly indicate that consent should be refused.
- 6.2.19 In summary, in accordance with NPS EN-1 the Scheme will provide infrastructure that is CNP where need is fully established and for which the presumption in favour of granting development consent is engaged. It is also in accordance with local planning policy which seeks to increase the delivery of low carbon and renewable energy generation in the City of Doncaster administrative area.
- 6.2.20 In accordance with section 104 (3) of the PA 2008 (Ref. 1), the Secretary of State must have regard to the Energy NPSs as relevant national policy for decision making. The above demonstrates how the Scheme is in accordance with the principles of the Energy NPSs in delivering CNP infrastructure at a time of urgent need. The deployment of large scale solar is part of the national planning policy strategy along with other technologies forming an essential component of the UK's plan to bring forward all electricity that is needed from low carbon sources by 2035. The Scheme will deliver large amounts of cheap, secure and low-carbon electricity. Maximising the capacity of generation in the proposed location for the Scheme, represents a significant and commercially rational step forward in the fight against the global climate emergency.

6.2.21 Therefore, substantial weight should be given to the need for the Scheme, and its status as CNP infrastructure, as identified in NPS EN-1 (Ref. 2) in the decision making process. This is discussed further in Section 7 of this Planning Statement.

6.3 Good Design and Site Selection

Planning Policy Context

6.3.1 Section 4.7 of NPS EN-1 (Ref. 2) sets out the principles for good design that are applicable for all energy infrastructure. Paragraph 4.7.1 states that high quality design goes “*far beyond*” aesthetic considerations; the functionality of an object, whether a building or other type of infrastructure, is equally important.

6.3.2 It is stated in paragraph 4.7.2 of NPS EN-1 (Ref. 2) that:

“Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area”.

6.3.3 NPS EN-1 (Ref. 2) paragraph 4.7.3 explains how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts of the Scheme. Given how good design can contribute towards mitigating the adverse impacts of a project, paragraph 4.7.4 of NPS EN-1 (Ref. 2) requires applicants to consider how good design can be applied during the early stages of a project.

6.3.4 NPS EN-1 (Ref. 2) paragraphs 4.7.5 to 4.7.7 encourage the use of design principles and notes a design champion could be appointed to guide the design development from conception to operation. Paragraph 4.7.6 acknowledges that whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting. NPS EN-1 (Ref. 2) expects applicants to provide details in their application of how the design process was conducted and how the design has evolved.

6.3.5 Paragraph 4.7.10 of NPS EN-1 (Ref. 2) requires the Secretary of State to be satisfied that energy infrastructure is sustainable, attractive, durable, and adaptable as they can be. Paragraph 4.7.11 requires the applicant to ensure consideration has been given to the functionality (including fitness for purpose and sustainability), and aesthetics, including its contribution to the quality of the area in which it would be located. It also seeks consideration of any potential amenity benefits, and visual impacts on the landscape as far as possible.

6.3.6 NPS EN-3 (Ref. 3) provides specific design policies for solar development and recognises that there are a number of factors when considering the design and layout of large-scale ground mounted solar PV sites. Paragraph 2.10.60 states that these can include “*proximity to available grid capacity to*

accommodate the scale of generation, orientation, topography, previous land-use, and ability to mitigate environmental impacts and flood risk”.

Paragraph 2.10.17 also outlines the typical land requirements for solar farms, suggesting that a solar farm requires between 2 to 4 acres for each MW of output, with a typical 50MW solar farm consisting of around 100,000 to 150,00 panels covering between 125-200 acres (although it also notes this can vary significantly depending on the particular site features, and as technology changes over time). Paragraph 2.10.61 also adds that *“For a solar farm to generate electricity efficiently the panel array spacing should seek to maximise the potential power output of the site. The type, spacing and aspect of panel arrays will depend on the physical characteristics of the site such as site elevation”.*

- 6.3.7 NPS EN-3 (Ref. 3) paragraphs 2.10.19 to 2.10.48 specifically refer to factors influencing site selection and design. These factors include: irradiance and topography; network connection; proximity to dwellings; agricultural land classification and land type; accessibility; PRow and security and lighting. Further technical considerations regarding the design and layout of sites are outlined in NPS EN-3 (Ref. 3) paragraphs 2.10.49 to 2.10.69 including site capacity, site layout design and appearance, project lifetime, and decommissioning.
- 6.3.8 Paragraphs 2.10.70 to 2.10.71 of NPS EN-3 (Ref. 3) recognise the need for flexibility in design for solar NSIPs. This is mirrored in paragraphs 2.2.1 to 2.2.8 of NPS EN-5 (Ref. 4) which consider factors influencing site selection and design for electricity networks infrastructure:
- “There will usually be a degree of flexibility in the location of the development’s associated substations, and applicants should consider carefully their location, as well as their design”.*
- 6.3.9 Paragraph 2.2.9 of NPS EN-5 (Ref. 4) states that the applicant should *“consider such characteristics as the local topography, the possibilities for screening of the [electricity networks] infrastructure and/or other options to mitigate any impacts”.* NPS EN-5 paragraph 2.4.3 requires the Secretary of State to be mindful that electricity networks infrastructure must in the first instance be safe and secure, and that applicant’s ability to influence the aesthetic appearance of infrastructure may be limited by the functional design constraints of safety and security.
- 6.3.10 In addition to national planning policy, national design guidance is also of relevance and is referred to at paragraph 4.7.5 footnote 122 of NPS EN-1 (Ref. 2). The National Infrastructure Commission (NIC) in their Design Principles for National Infrastructure refers to four key pillars of good design including Climate, People, Place and Value (Ref. 46). The NIC recognise that design relates to both visual appearance and technical performance. In addition, the National Design Guide (January 2021) sets out the components of good design with 10 characteristics of well-designed places including context, movement, nature, uses and lifespan. The design policy and guidance context is discussed further in the **Design and Access Statement [EN010152/APP/7.2]**.
- 6.3.11 In terms of local policy, Chapter 12: Design and the Built Environment of the Doncaster Local Plan (Ref. 16) provides a framework for the assessment for the design aspects of proposals. Relevant policies are listed below and seek

to ensure that proposals achieve high quality design, have regard to the local character and respond to the context of its surroundings:

- a. Policy 41: Character and Local Distinctiveness (Strategic Policy).
- b. Policy 42: Good Urban Design.
- c. Policy 46: Design of Non-Residential, Commercial and Employment Developments (Strategic Policy).
- d. Policy 47: Safe and Secure Places.
- e. Policy 48: Landscaping of New Developments.

Appraisal

- 6.3.12 The location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.
- 6.3.13 The Scheme's design, including access design, has been developed by a team of qualified and experienced professionals comprising solar energy engineers; highway engineers; planners; landscape architects; ecologists; heritage specialists; and other environmental professionals.
- 6.3.14 The design team has worked collaboratively to provide an integrated and responsive design. The Applicant has sought feedback from a wide range of stakeholders to inform each stage of the design process, and has had regard to these comments, in accordance with requirements of the PA 2008 (Ref. 1) and Ministry of Housing, Communities and Local Government (MHCLG) guidance (Ref. 47). The Applicant has also built relationships with key stakeholders to better understand their views and incorporate design changes where practicable. These stakeholders have included planning, highway, heritage, landscape, ecology and PRow officers at City of Doncaster Council; the Environment Agency; Historic England; Natural England; South Yorkshire Fire Service; the relevant Internal Drainage Boards, elected councillors, MP, Parish Councils and the local community.
- 6.3.15 Design principles were developed at an early stage and have guided the Scheme's design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in accordance with the mitigation hierarchy, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. This has included:
- a. developing a landscape design which carefully integrates the Scheme into the existing landscape pattern as far as practicable by retaining and following existing features, and providing new planting, including the filtering and screening of views from visual receptors.
 - b. avoiding and retaining existing ecological features and habitats, and increasing the biodiversity value of the Order limits through embedded

- and additional mitigation and enhancement measures to provide a minimum of 10% BNG;
- c. retaining and enhancing PRow through the Solar PV Site; and
 - d. reducing impacts as far as practicable on the setting of designated heritage assets and developing design solutions to enable the preservation in situ of archaeological remains.
- 6.3.16 Design decisions have been made by the Applicant, responding to the outcomes of statutory consultation and stakeholder engagement, technical considerations, ongoing fieldwork and desk-based analysis. The evolution of the Scheme's design is summarised in **Chapter 3: Alternatives and Design Evolution, ES Volume I [EN010152/APP/6.1]** and within the **Design and Access Statement [EN010152/APP/7.2]**. The landscape and ecological design for the Scheme is further explained in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** and the management of PRow in the **Framework Public Rights of Way Management Plan EN010152/APP/7.13]**.
- 6.3.17 The Applicant is seeking flexibility in its proposed design as discussed in **Chapter 2: The Scheme, ES Volume I [EN010152/APP/6.1]** because a detailed design process will need to follow if the DCO is granted to ensure the Scheme can make best use of the latest technology and construction methods. The EIA has therefore been undertaken assessing the maximum (and where relevant, minimum) parameters for the Scheme where flexibility is required. The **Outline Design Parameters Statement [EN010152/APP/7.4]** details the parameters which will provide a framework within which the detailed design can be developed and is brought forward under requirement.
- 6.3.18 **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]** explains how the Applicant has undertaken site selection and design in a proportionate way, in accordance with paragraphs 2.10.19 to 2.10.48 of NPS EN-3 (Ref. 3). **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** and Section 6 of the **Statement of Need [EN010152/APP/7.3]** details how the Scheme meets the technical considerations of paragraphs 2.10.49 to 2.10.69 of NPS EN-3 (Ref. 3). The following provides a summary of how the Scheme meets the considerations set out in NPS EN-3:
- a. Irradiance and topography – the Applicant's site selection process (set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**) demonstrates that land was identified for the Solar PV Site within an area of good solar irradiance and relatively low lying and flat topography landscape to maximise energy generation.
 - b. Network Connection – the Applicant was aware of the legacy of coal fired power stations in the Yorkshire region and undertook a search of available capacity within these areas. This was in the context that many coal fired power stations were being dismantled which would free up connection to the national electricity transmission system (NETS). Following discussions with National Grid, the Applicant identified available capacity at the Existing National Grid Thorpe Marsh Substation and subsequently secured a Point of Connection (POC). The Point of

Connection is shown on **ES Volume II Figure 3-1: Point of Connection [EN010152/APP/6.2]**.

- c. Proximity to Dwellings – the Applicant sought to reduce adverse impacts by not surrounding local villages, including the village of Fenwick which occupies a large area of unconstrained land as shown on **ES Volume II Figure 3-4: Planning, Environmental and Land Use Constraints [EN010152/APP/6.2]**. The Scheme’s proposed layout also incorporates buffers from nearby residential dwellings.
- d. Agricultural land classification – – the Applicant’s site selection process process (set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**) demonstrates that the use of Best and Most Versatile (BMV) land was minimised by targeting non BMV land for the Solar PV Site. The majority of land within the Order limits is agricultural land which is not classified as best and most versatile.
- e. Accessibility – the Applicant’s site selection process ensured that access to the Solar PV Site was available from the local highway network. The land that has been identified for the Solar PV Site has good access to the strategic road network, with the M62 located approximately 4 km to the north, the M18 located approximately 8 km to the east and the A19 (Selby Road) located approximately 3 km to the west. This is supplemented with local roads such as Moss Road and Fenwick Common Lane.
- f. Public Rights of Way (PRoW) – in selecting the Solar PV Site, the Applicant has sought to avoid land which is crossed by PRoW, where practicable. The land selected provides a Solar PV Site which largely avoids PRoW, whilst those which are located within the Solar PV Site would be retained (with some localised diversions) and available for use throughout the construction, operation and maintenance phase of the Scheme, with increased buffers applied to preserve amenity as set out in the **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]**.
- g. Security and lighting – proposed fencing has been designed to minimise its visual prominence during operation. Pole mounted internal facing closed circuit television (CCTV) systems are proposed around the perimeter of the operational areas of the Solar PV Site. These will not require lighting and will use infrared technology at night. The Solar PV Site will not require artificial lighting other than during temporary periods of maintenance/repair and for the On-Site Substation, BESS and Operations and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions.
- h. Site Capacity – the site selection process favoured a contiguous site to allow the development of a cohesive design, and to derive a site that was sufficient to reflect the power output reflective of the Bilateral Connection Agreement with National Grid (as set out in the **Grid Connection Statement [EN010152/APP/7.5]**). The selected Solar PV Site allowed for the required number of panels, considering site buffers and recommended spacing between panels as set out in paragraphs 2.10.50 – 2.10.58 of NPS EN-3 (Ref. 3). The Scheme design also falls within the range described in paragraph 2.10.17 of NPS EN-3 (Ref. 3).

- i. Site Layout Design and Appearance – the layout and appearance of the Solar PV Site was developed by a team of qualified and experienced professionals and informed by the outcome of baseline ecology, landscape and visual, heritage, flood risk, access surveys, and consultation feedback. The site layout design is described in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** and illustrated on **ES Volume II Figure 2-3 Indicative Site Layout Plan [EN010152/APP/6.2]** which provides an efficient arrangement to maximise electricity generation whilst avoiding and minimising environmental effects. Underground cabling is proposed to reduce visual impacts.
 - j. Project lifetime – the Applicant is proposing a 40-year operational design life of the Scheme which is typical for solar farms.
 - k. Decommissioning – the Applicant is proposing to decommission the Scheme after 40 years and has provided an appropriate framework of design control measures in the **Framework Decommissioning Environmental Management Plan (DEMP) [EN010152/APP/7.9]**.
- 6.3.19 In summary, the Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

6.4 Landscape and Visual Impact

Planning Policy Context

- 6.4.1 Section 5.10 of NPS EN-1 (Ref. 2) sets out the landscape and visual considerations for energy NSIPs. Paragraph 5.10.1 explains that “*landscape and visual effects of energy projects will vary on a case-by-case basis according to the type of development, its location and the landscape setting of the proposed development*”. Paragraph 5.10.4 further states that “*Landscape effects arise not only from the sensitivity of the landscape but also the nature and magnitude of change proposed by the development, whose specific siting and design make the assessment a case-by-case judgement*”.
- 6.4.2 NPS EN-1 paragraph 5.10.5 (Ref. 2) states that “*Virtually all nationally significant energy infrastructure projects will have adverse effects on landscape, but there may also be beneficial landscape character impacts arising from mitigation*”.
- 6.4.3 Paragraph 5.10.6 of NPS EN-1 (Ref. 2) describes how projects need to be designed carefully, with regard given to the potential impact on the landscape in terms of siting, operational and other relevant constraints. It

- states, *“the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate”*.
- 6.4.4 Paragraph 5.10.12 of NPS EN-1 (Ref. 2) refers to local landscapes that may be highly valued and states that where a local development document *“has policies based on landscape...these should be paid particular attention. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development”*.
- 6.4.5 With regard to visual effects, NPS EN-1 paragraph 5.10.13 (Ref. 2) states that *“All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites”*. Paragraph 5.10.14 then goes on to state that the Secretary of State *“will have to judge whether the visual effects on sensitive receptors such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project”*.
- 6.4.6 Paragraphs 5.10.16 to 5.10.25 of NPS EN-1 (Ref. 2) require applicants to undertake a landscape and visual assessment of the effects during construction and operation on landscape components and landscape character. Paragraph 5.10.17 expects the applicant to consider any relevant landscape character assessments and associated studies, along with relevant local policies based on these assessments in local development documents. Paragraph 5.10.21 states that the assessment *“should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity”*. The use of landscape management plans by applicants to enhance landscape is encouraged in paragraph 5.10.24, confirming that this will *“help to enhance environmental assets where they contribute to landscape and townscape quality”*.
- 6.4.7 With regard to mitigating the effects of development on landscape and visual receptors, it is acknowledged in NPS EN-1 (Ref. 2) paragraph 5.10.26 that while reducing the scale of energy infrastructure can help to mitigate effects, doing so or amending the design may result in a significant operational constraint and reduction in function, including electricity generation output. NPS EN-1 paragraph 5.10.27 (Ref. 2) states:
“Adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within its development site and wider setting. The careful consideration of colours and materials will support the delivery of a well-designed scheme, as will sympathetic landscaping and management of its immediate surroundings”.
- 6.4.8 Paragraph 5.10.35 of NPS EN-1 (Ref. 2) recognises that *“the scale of energy projects means that they will often be visible across a very wide area”* and states that outside of designated landscapes, the Secretary of State should *“...judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project”*. Paragraph 5.10.36 directs the Secretary of State to *“consider whether any adverse impacts are temporary, such as during construction, and/or is capable of being reversed in a timescale that is considered reasonable”*.
- 6.4.9 Paragraph 5.10.37 of NPS EN-1 (Ref. 2) sets out that the Secretary of State should *“consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational*

and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation”.

- 6.4.10 Paragraph 2.10.98 of NPS EN-3 (Ref. 3) makes it clear that applicants “*will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays especially within nationally designated landscapes*”
- 6.4.11 NPS EN-3 (Ref. 3) paragraph 2.10.131 also states that applicants should consider the potential to mitigate landscape and visual impacts through measures such as screening with native hedges, trees and woodland. Paragraph 2.10.132 requires applicants to consider utilising existing features such as hedges or landscaping to assist in site security and screen security fencing. Paragraph 2.10.133 requires applicants to minimise security lighting where possible, stating that any lighting should utilise a passive infra-red technology, while being designed in a manner which minimises impacts.
- 6.4.12 Policy 26 (Green Infrastructure Strategic Policy) of the Doncaster Local Plan (Ref. 16) seeks to protect and enhance Doncaster’s green infrastructure, including landscapes and ecological networks. Policy 33 (Landscape Strategic Policy) supports proposals that will “*take account of the quality, local distinctiveness and the sensitivity to change of distinctive landscape character areas and individual landscape features*”, while Policy 48: (Landscaping of New Developments) seeks to protect landscape character and landscape features.

Assessment Conclusions

- 6.4.13 **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** presents an assessment of the Scheme’s impact on the existing landscape character and its potential visual effects, in line with the requirements of paragraphs 5.10.16 to 5.10.25 of NPS EN-1 (Ref. 2).
- 6.4.14 There are no statutory or local landscape designations within the Order limits, nor does it contain any rare landscape features. The Scheme will therefore not result in any significant adverse effects upon these types of landscape designations and features.

Landscape effects

- 6.4.15 **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** provides an assessment of the likely significant effects of the Scheme on landscape character during construction (2028-2030, during winter), operation and maintenance (Year 1 during winter and Year 15 during winter and summer), as well as decommissioning (2070, during winter), taking into account the landscape character sensitivity and the proposed mitigation strategy for minimising effects.
- 6.4.16 Taking into account the landscape character sensitivity and the proposed mitigation strategy for minimising effects, the assessment concludes that the Scheme would have significant adverse effects on a number of landscape receptors as a result of construction and decommissioning. However, these effects would be short-term and temporary.
- 6.4.17 In terms of operational effects, there would be an evident change in land use resulting from the Solar PV Site, which would alter the open character of the

landscape. At Year 1, Moderate Adverse (significant) effects are therefore anticipated on the following landscape receptors:

- a. Landscape Character Area F2: Owsten to Sykehouse Settled (LCA F2);
- b. Local Landscape Character Area 01: Fenwick Village (LLCA 01);
- c. Local Landscape Character Area 02: Fenwick Farmlands (LLCA 02);
- d. Local Landscape Character Area 03: River Went Farmlands (South) (LLCA 03); and
- e. Local Landscape Character Area 05: River Went Corridor (LLCA 05).

6.4.18 However, at Year 15, these effects would reduce and would not be significant for all of the above receptors, except for LLCA 02 – Fenwick Farmlands. This local landscape character area would still experience significant effects (Moderate Adverse): this is because two thirds of it would still be occupied by the Solar PV Site, continuing to introduce an evident change in land use and character.

6.4.19 For all other sensitive landscape receptors, the effects at Year 15 would not be significant, ranging from Neutral to Minor Adverse. By Year 15, structural planting proposed as part of the Scheme, including hedgerow gapping-up and new vegetation belts would have matured, helping to reduce the area from which the Scheme would be perceptible. Replacement planting along the Grid Connection Corridor would have also established and ground cover would be returned to its previous use, such that there would be no change in the landscape character.

Visual Effects

6.4.20 **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** provides an assessment of the potential changes to existing views of visual receptors, as a result of the addition or loss of features in existing views. The visual receptors likely to experience views of the construction and operation of the Solar PV Site or Grid Connection Corridor include residents, recreational users of the PRoW network / promoted walking routes / cycling routes, users of the road network and users of the rail network.

6.4.21 The list of viewpoints and visual receptors evaluated in the visual assessment is presented in **ES Volume III Appendix 10-6: Visual Assessment [EN010152/APP/6.3]**. They are illustrated on **ES Volume II Figure 10-9: Representative Viewpoint Locations [EN010152/APP/6.2]**. These viewpoints were selected through consultation with the relevant stakeholders. Significant adverse effects are identified on a number of visual receptors during construction (2028-2030) and decommissioning (2070). These effects would be short-term and temporary.

6.4.22 The assessment concludes that, with the mitigation and additional enhancement measures discussed above, at operational Year 1 (2031), the following visual receptors will experience significant adverse effects:

- a. People walking on PRoW within the Solar PV Site
- b. Residents to the north of Lawn Lane
- c. Lilac Cottage, Jet Hall Farm, Sunrise Cottage and the Old School

- d. West End Cottage and South Fork
 - e. People walking on PRow along the River Went to the north of the Solar PV Site
 - f. People walking on PRow to the immediate south of the Solar PV Site.
- 6.4.23 All other visual receptors (residential and recreational), including the majority of residents in Fenwick and Moss, would not experience significant adverse effects during Year 1 of operation.
- 6.4.24 By operational Year 15, mitigation planting will be sufficiently mature to reduce the magnitude of visual effects relative to Year 1 for the majority of visual receptors, such that these are no longer significant, with the exception of the following:
- a. People walking on PRow within the Solar PV Site (during winter and summer): close and open views of solar PV panels within some fields would remain from PRow Fenwick 10, 12, 13, 14, 15, 16, Moss 5 and Sykehouse 29;
 - b. Users of PRow Fenwick 11 (during winter only), proposed planting along Fenwick Common Drain would filter views of solar PV panels in winter, screening them in summer.
 - c. Residents of Jet Hall Farm (during winter only): hedgerow gapping-up would screen and filter the Solar PV Site from most nearby properties, but visibility of these elements would remain at an oblique angle from upper storey windows of Jet Hall Farm during winter (the effect would be reduced and not significant in summer when vegetation is in leaf).
- 6.4.25 The use of focussed mature planting has been incorporated into the landscape design. This is in the form of 'ready hedges' at an approximate height of 1.5m at time of planting and are proposed in sensitive locations. This will reduce the time between planting during the construction phase and establishment when the planting would provide effective screening, usually at Year 15. The sensitive locations where this additional enhancement will be implemented are detailed in the **Framework Landscape and Ecological Management Plan [EN010152/APP/7.14]**. This additional enhancement measure would not reduce the residual effect experienced by residential receptors at the sensitive locations, but would allow for the screening effects of Year 15 to be delivered sooner.

Appraisal

- 6.4.26 The Applicant has undertaken an iterative design process which responds to policy requirements set out in NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3), published landscape character assessments and fieldwork analysis, in order to minimise harm to the landscape and reduce the visual effects of the Scheme. This has been achieved through a Scheme that is of good design which balances the need to generate a large amount of renewable energy, whilst responding to the local context and integrating the Scheme into its landscape setting, in accordance with national and local planning policies.
- 6.4.27 As described in **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]**, an extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and visual effects of the Scheme as far as practicable. As described above,

some significant adverse residual effects on landscape character and visual amenity would remain by Year 15 of the operation and maintenance phase of the Scheme. However, these operational effects are localised and would be reversed following 40 years of operation through decommissioning.

- 6.4.28 As recognised in NPS EN-1 paragraph 5.10.5 (Ref. 2), the development of new energy infrastructure, at the scale and speed required to meet the current and future need identified, is likely to have some negative effects on landscape and visual amenity which may not be able to be mitigated.
- 6.4.29 The Scheme has sought to minimise impacts through design iteration and careful planting, it is therefore considered that the Scheme accords with paragraphs 5.10.6 and 5.10.37 of NPS EN-1 (Ref. 2) and has taken account of the existing character and sensitivity of the landscape as set out in local policy.
- 6.4.30 For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (Ref. 2), it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.
- 6.4.31 Overall, therefore it is considered that the Scheme accords with national and local landscape and visual amenity policies.

6.5 Flood Risk and Drainage

Planning Policy Context

Flood risk to and from development and drainage

- 6.5.1 NPS EN-1 (Ref. 2) paragraph 5.8.13 states that a site-specific flood risk assessment (FRA) should be provided *“for all energy projects located in Flood Zones 2 and 3 in England”*. In Flood Zone 1 in England, an assessment should accompany all proposals involving: sites of 1 hectare or more; land identified as having critical drainage problems; land identified as being at increased flood risk in future; land that may be subject to other sources of flooding (for example surface water); where the Environment Agency (the EA), Lead Local Flood Authority, Internal Drainage Board or other body have indicated that there may be drainage problems.
- 6.5.2 Paragraph 5.8.14 of NPS EN-1 (Ref. 2) requires the Flood Risk Assessment (FRA) to identify and assess the risks of all forms of flooding to and from the project. It should also demonstrate how the flood risks will be managed, while considering impacts from climate change.
- 6.5.3 The need for a FRA is also set out in paragraph 2.10.84 of NPS EN-3 (Ref. 3) which requires it to be submitted alongside the applicant's ES, and to consider the impacts of drainage.
- 6.5.4 Paragraph 5.8.15 of NPS EN-1 (Ref. 2) outlines the minimum requirements for FRA's, which includes (amongst other matters) taking the impacts of climate change into account, quantifying the different types of flooding, assessing the residual risk of flooding, and the requirement for sustainable drainage systems.

Sequential Test

- 6.5.5 Paragraph 5.8.6 of NPS EN-1 (Ref. 2) introduces the Sequential Test, explaining that its aim is to “*ensure that flood risk from all sources of flooding is taken into account at all stages in the planning process to avoid inappropriate development in areas at risk of flooding*”.
- 6.5.6 Paragraph 5.8.9 of NPS EN-1 (Ref. 2) further explains the Sequential Test and contains a footnote (213) referencing the NPPF’s Planning Practice Guidance (PPG) flood risk section (**Error! Reference source not found.**) (paragraph 023 Reference ID 7-923-20220825) which provides guidance as to how the Sequential Test should be applied.
- 6.5.7 Paragraph 5.8.16 of NPS EN-1 (Ref. 2) notes that further guidance on flood risk can be found in the NPPF. Paragraph 167 of the NPPF (**Error! Reference source not found.**) states that: “*All plans should apply a sequential, risk-based approach to the location of development – taking into account all sources of flood risk*”. The PPG (Ref. 14) outlines that the sequential approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. It emphasises that all forms of flood risk (including surface water flooding) need to be treated consistently with river and tidal flooding in mapping probability and assessing vulnerability. Therefore, the Sequential Test should be applied across all areas of flood risk.
- 6.5.8 Paragraph 5.8.21 of NPS EN-1 (Ref. 2) provides the reasons that a Sequential Test should be undertaken, and reiterates what is outlined in the PPG, stating that the Sequential Test ensures that a “*sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account*”. It also supports opportunities to lower flood risk through the use of Sustainable Urban Drainage Systems (SuDS).
- 6.5.9 Paragraph 5.8.23 of NPS EN-1 (Ref. 2) requires the consideration of alternative sites to take account of policy on alternatives as set out in Section 4.3 of NPS EN-1 and states “*All projects should apply the Sequential Test to locating development within the site*”. This is reiterated within paragraph 5.8.29 of NPS EN-1 (Ref. 2) which states “*The sequential approach should be applied to the layout and design of the project. Vulnerable aspects of the development should be located on parts of the site at lower risk and residual risk of flooding*”.
- 6.5.10 In determining an application for development consent, the Secretary of State must be satisfied that where relevant the Sequential Test has been applied and satisfied as part of site selection and a sequential approach has been applied at site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk (paragraph 5.8.36 of NPS EN-1) (Ref. 2).

Exception Test

- 6.5.11 Paragraph 5.8.9 of NPS EN-1 (Ref. 2) introduces the Exception Test, stating “*If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied*”. This paragraph contains a footnote (214) referencing the PPG risk section (paragraph 031 Reference ID 7-031-20220825) (Ref. 14) providing guidance on what the Exception Test consists of, and how it is intended to be applied.

- 6.5.12 The NPPF reiterates the above guidance in relation to the Exception Test. Annex 3 of the NPPF (Ref. 13) identifies solar farms as ‘essential infrastructure’. Table 2: Flood risk vulnerability and flood zone ‘incompatibility’ of the PPG (paragraph 079, Reference ID: 7-079-20220825) (Ref. 14) sets out that where essential infrastructure is located within Flood Zone 3a or 3b, and the sequential test has not identified any other reasonably available, lower risk sites for which the development could be located on, an Exception Test is required. By comparison, for developments that are classified as highly, more or less vulnerable to flooding, if the sequential test had not identified alternative sites, then development within Flood Zone 3 could be prohibited entirely.
- 6.5.13 Paragraph 5.8.11 of NPS EN-1 (Ref. 2) states that “*Both elements of the Exception test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that:*
- the project would provide wider sustainability benefits to the community that outweigh flood risk; and*
- the project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall”.*

Drainage

- 6.5.14 With regard to drainage, paragraph 5.8.15 of NPS EN-1 (Ref. 2) introduces the need for a FRA to include details of how surface water will be impacted by the Scheme, and how the Scheme will manage the discharge of surface water, including how the hierarchy of drainage mitigation and management has been followed. It also requires a FRA to explain and justify why the types of SuDS and methods of discharge have been selected.
- 6.5.15 Paragraph 5.8.15 of NPS EN-1 (Ref. 2) also contains a footnote referencing the PPG flood risk section (Ref. 14) (paragraph 055 Reference ID 7-055-20220825), which explains the use and importance of SuDS, reiterating that they provide benefits for water quantity, water quality, biodiversity and amenity. The PPG also refers to available technical standards(Ref. 14) to help guide decisions about the design, maintenance and operation of sustainable drainage systems.
- 6.5.16 NPS EN-1 paragraph 5.8.25 (Ref. 2) explains the range of sustainable approaches to surface water drainage management. Paragraph 5.8.26 requires the site layout and surface water drainage systems to be able to “*cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts”.* The predicted impacts of climate change should be accounted for in surface water drainage arrangements, as required by paragraph 5.8.27 of NPS EN-1 (Ref. 2).
- 6.5.17 Paragraph 5.8.28 of NPS EN-1 (Ref. 2) states it “*may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration facilities or attenuation storage to be provided outside the project site, if necessary through the use of a planning obligation”.*

6.5.18 Paragraphs 2.10.85 and 2.10.87 of NPS EN-3 (Ref. 3) recommends the use of sustainable drainage systems and avoiding the use of culverts.

Decision-making

6.5.19 In terms of decision making, paragraph 5.8.36 of NPS EN-1 (Ref. 2) directs applicants to demonstrate to the Secretary of State that the application is supported by an appropriate FRA, the Sequential Test has been applied and satisfied as part of site selection, and a sequential approach has been applied at the site level. It also requires proposals to be in line with any relevant national and local flood risk management strategy, which relates to section 9(1) of the Flood and Water Management Act 2010 (Ref. 48). This requires local flood risk management strategies to be developed by lead local flood authorities.

6.5.20 Paragraph 5.8.36 of NPS EN-1 (Ref. 2) also states that the Secretary of State should be satisfied that SuDS have been designed into the Scheme or provide clear evidence that their use would be inappropriate should they not be used, and that the project is designed to remain safe and operational during its lifetime, without increasing flood risk elsewhere.

6.5.21 NPS EN-1 (Ref. 2) paragraph 5.8.41 adds that essential infrastructure within flood zone 3b *“should only be consented if the development will not result in a net loss of floodplain storage, and will not impede water flows”*.

Local Policies

6.5.22 Policy 56 (Drainage) of the Doncaster Local Plan (Ref. 16) requires development sites to *“incorporate satisfactory measures for dealing with their drainage impacts to ensure waste water and surface water run-off are managed appropriately and to reduce flood risk to existing communities”*.

6.5.23 Policy 57 (Flood Risk Management) of the Doncaster Local Plan (Ref. 16) makes it clear that *“all development proposals will be considered against the NPPF, including application of the sequential test and, if necessary, the exception test”*.

Assessment Conclusions

Flood Risk

6.5.24 A **Flood Risk Assessment (FRA) (ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3])** provides an assessment of flood risk to and from the Scheme from all sources of flooding. The FRA demonstrates how residual flood risk will be managed during construction, operation and decommissioning of the Scheme and how the requirements of the Sequential Test and Exception Test are satisfied. The FRA is supported by hydraulic modelling which has been undertaken for the Solar PV Site.

6.5.25 Tidal/fluvial flood risk is illustrated on **ES Volume II Figure 9-4: Environment Agency Flood Map for Planning (Rivers and Seas) [EN010152/APP/6.2]**.

6.5.26 The majority of the south and west areas of the Solar PV Site are located within Flood Zone 1, including the BESS Area and On-Site Substation. Areas to the north and east of the Solar PV Site are located within Flood Zone 2 and Flood Zone 3 associated with the River Went and Fleet Drain. Some areas of Flood Zone 3 within the Solar PV Site are shown to be in areas

where there is a reduction in risk of flooding from rivers and the sea due to the presence of flood defences. The northern area of the Solar PV Site which is within Flood Zone 3b is proposed for landscaping and ecology mitigation and no infrastructure will be located here. NPS EN-1 paragraph 5.8.41 is not therefore engaged.

- 6.5.27 The BESS Area and On-Site Substation will be located within Flood Zone 1. Some Field Stations will be located within Flood Zone 2 and some Solar PV Panels will be located within areas of Flood Zone 2 and 3. On-Site Cables will be required to connect the Solar PV Panels and string inverters which will typically be above ground level (along a row of racks fixed to the Solar PV Mounting Structure or fixed to other parts of nearby components). All other On-Site Cables will be underground.
- 6.5.28 The Grid Connection Corridor is largely located within areas of Flood Zone 3 with smaller areas of Flood Zone 2 along its central section. Approximately 0.7km of the Grid Connection Corridor is located within Flood Zone 1 towards its northern extent. As the Grid Connection Cables will be buried, it is considered that fluvial/tidal sources pose a very low risk during construction and operation. There will also be no loss of floodplain storage, impedance of water flows or increase to flood risk elsewhere given the Grid Connection Cables will be underground.
- 6.5.29 The FRA (**ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]**) concludes that during construction and decommissioning, to prevent an increase in flood risk to vulnerable receptors, temporary mitigation measures will be implemented as part of the CEMP and DEMP which are secured by requirements of the DCO (see Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**). The proposed measures are set out in the **Framework CEMP [EN010152/APP/7.7]** and **Framework DEMP [EN010152/APP/7.9]**.
- 6.5.30 The assessment of flood risk during the operational stage of the Scheme concludes that, with design mitigation, the risk to and from the Scheme at the Solar PV Site from all sources of flooding would be low taking climate change into account. The Scheme has been designed in order to remain operational during times of flood.
- 6.5.31 Design mitigation measures will be secured through the Draft DCO as part of the detailed OEMP to prevent an increase in flood risk to vulnerable receptors from the Scheme and mitigate flood risk to the Scheme. The proposed measures are set out in the **Framework OEMP [EN010152/APP/7.8]**. This includes the minimum height of the lowest part of the solar PV panels being 300 mm above the design flood level. Where panels are located within the Credible Maximum Scenario flood extent, they will be raised 400 mm above the flood level associated with this event. Where Field Stations are located within the Credible Maximum Scenario flood extent, they will be raised 300 mm above the flood level associated with this event. Where On-Site Cables are required above ground (for example, in archaeologically sensitive areas), these will be designed to be fully submersible.
- 6.5.32 The FRA identifies that the risk of tidal/fluvial flooding during a breach scenario is considered to be 'high' based on the hydraulic modelling results. An Emergency Response Plan will be included as part of the detailed CEMP,

- DEMP and OEMP which will provide details of the response to an impending flood defence breach scenario including an evacuation plan.
- 6.5.33 The On-Site Substation and BESS Area will be bunded to provide additional protection during an unlikely breach of the flood defences. Based on this mitigation, the residual risk of tidal/ fluvial flooding is considered to be 'low'. Any Field Stations within high surface water flood risk areas will also be raised 300 mm above expected surface water flood level.
- 6.5.34 **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** assesses flood risk in EIA terms and concludes that, with mitigation, there are no likely significant adverse effects on flood risk resulting from the construction, and operation and maintenance and decommissioning of the Scheme.
- 6.5.35 A Framework Drainage Strategy, (**ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]**) has been prepared detailing appropriate surface water drainage management through SuDS proposed as part of the Scheme to avoid increased flood risk from surface water and management of flow paths to ensure the Scheme remains safe throughout its lifetime. In addition, where any Field Stations are located within high surface water flood risk areas, they will be raised 300 mm above the design flood level. A detailed Drainage Strategy which must be in substantial accordance with the Framework Drainage Strategy is secured through requirement 9 of the **Draft DCO [EN010152/APP/3.1]**.

Appraisal

Sequential Test

- 6.5.36 The Scheme is classified as 'Essential Infrastructure' as defined in Annex 3 of the NPPF (Ref. 13) and the majority of the Scheme is situated within areas with the lowest risk of flooding from any source. However, there are certain areas of the Scheme that lie in Flood Zone 2 and 3, therefore the Applicant has undertaken a Sequential Test.
- 6.5.37 The location of the Solar PV Site has been selected on the basis of a number of different factors which are discussed in more detail in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**. The Sequential Test Report is provided at Annex B of the FRA (**ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]**) and this explains the sequential approach applied in selecting the land for the Solar PV Site which has considered the risk of flooding from all sources. The Solar PV Site is located in and around the largest area of identified unconstrained land which is at lowest risk of flooding from all sources. Other areas of land in this location were considered in terms of their flood risk and other suitability factors including land availability however the report concludes that these are not suitable and/or reasonably available alternative land areas for the Solar PV Site. The land that is considered available and suitable at lower risk of flooding has been chosen for the Solar PV Site.
- 6.5.38 A sequential approach has been applied to the layout and design of the solar infrastructure within the Solar PV Site to date whereby the On-Site Substation, BESS Area and the majority of the Solar PV Panels are in areas with the lowest risk of flooding from any source.

- 6.5.39 The Applicant has therefore demonstrated the Sequential Test has been met as part of site selection and as part of the layout and design of the Solar PV Site.
- 6.5.40 As noted in **ES Volume I Chapter 9 Flood Risk, Drainage and Water Environment [EN010152/APP/6.1]**) once constructed cabling within the Grid Connection Corridor will not be subject to flood risk because this infrastructure will be buried. Therefore, the application of the Sequential Test in relation to the Grid Connection Corridor applies only to the construction phase.
- 6.5.41 ed to the Applicant by National Grid is at the existing Thorpe Marsh Substation. The Existing National Grid Thorpe Marsh Substation and surrounding land in all directions for several km is located in Flood Zone 3 (see **ES Volume II Figure 9-4: Environment Agency Flood Map for Planning (Rivers and Seas) [EN010152/APP/6.2]**). The identification of the Grid Connection Corridor considered the flood risk context and confirmed that a corridor outside Flood Zones 2 and 3 connecting the Solar PV Site to the existing National Grid Thorpe Marsh Substation would not be possible as a result. The need for a direct route that follows existing linear features, minimises the number of land owners affected, and avoids sensitive receptors, interaction with utilities and environmental designations as far as practicable, are the reasons that the Grid Connection Corridor is routed as proposed.
- 6.5.42 Therefore, there are no reasonable alternatives within areas of Flood Zone 1 or Flood Zone 2 that allow the Grid Connection Corridor to avoid Flood Zone 3, and the Sequential Test can therefore be demonstrated to be met for this part of the Scheme.

Exception Test

- 6.5.43 As a result of areas of the Solar PV Site and Grid Connection Corridor being located within Flood Zone 3, it is necessary to apply the Exception Test in accordance with NPS EN-1 (Ref. 2). The Exception Test in NPS EN-1 (Ref. 2) requires it to be demonstrated that:
- a. *“The development would provide wider sustainability benefits to the community that outweigh the flood risk; and*
 - b. *The development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall”.*
- 6.5.44 In response to meeting part (a) of the Exception Test the need for the Scheme is explained in the **Statement of Need [EN010152/APP/7.3]** and summarised in Section 5 of this Planning Statement. Through the generation of low carbon electricity, the Scheme will contribute to the urgent need to decarbonise electricity generation in the UK as required by the latest national renewable energy policy and will contribute to the UK’s legally binding climate change targets. Specifically, it will deliver a significant amount of low carbon energy delivering the benefits to the energy system set out in NPS EN-1. The Scheme will have both a national, and global significance, through its contribution to decarbonisation of the UK’s electricity generation. The use of the BESS provides additional carbon saving opportunities as explained in the Statement of Need **[EN010152/APP/7.3]** and **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**.

- 6.5.45 Section 5 of this Planning Statement also explains the ecological enhancements of the Scheme's design set out in the **Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]**; and benefits of the Scheme from employment generation and GVA contribution during construction. Similar economic benefits are also anticipated for the decommissioning phase.
- 6.5.46 In summary, it is considered that the Scheme will provide wider sustainability benefits to the community, including job creation in the local area during construction and decommissioning, that outweigh its impacts on flood risk in accordance with NPS EN-1. The Scheme therefore satisfied part (a) of the Exception Test.
- 6.5.1 **In response to meeting part (b) of the Exception Test, this is addressed through the site-specific FRA set out in ES Volume III Appendix 9-3 [EN010152/APP/6.3], which demonstrates that with mitigation the Scheme will be safe from flooding throughout its lifetime without increasing flood risk elsewhere. Therefore, the Scheme satisfies part (b) of the Exception Test.**
- 6.5.2 As the Scheme satisfies both elements of the Exception Test, development of solar infrastructure within Flood Zones 2 and 3 can proceed in accordance with the policy framework.

Conclusion

- 6.5.3 The FRA (**ES Volume III Appendix 9-3 [EN010152/APP/6.3]**) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the **Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3])** demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance
- 6.5.4 A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This demonstrates that the Sequential Test has been met with respect to the Solar PV Site. The Sequential Test has been applied to the Grid Connection Corridor, confirming that there are no reasonably available alternative locations for this. The Exception Test has been passed in relation to the Solar PV Site and Grid Connection Corridor owing to the wider sustainability benefits that the Scheme will deliver and that it will remain safe throughout its lifetime without increasing flood risk elsewhere.
- 6.5.5 In summary, the Scheme is therefore in accordance with the flood risk and drainage policies of NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3), NPS EN-5 (Ref. 4), the NPPF (Ref. 13), the PPG (Ref. 14) and Policies 56 and 57 of the Doncaster Local Plan (Ref. 16).

6.6 Water quality and resources

Planning Policy Context

- 6.6.1 NPS EN-1 paragraph 5.16.2 (Ref. 2) outlines the impacts development may have on the water environment, stating “*During the construction, operation, and decommissioning phases, development can lead to increased demand for water, involve discharges to water, and cause adverse ecological effects resulting from physical modifications to the water environment*”. It also states that there is the potential for an increased risk of spills and leaks of pollutants to the water environment, which could lead to adverse impacts on health or on protected species and habitats. Where the project is likely to have effects on the water environment, paragraph 5.16.3 of NPS EN-1 (Ref. 2) expects applicants, as part of their ES, to “*undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment.*”
- 6.6.2 NPS EN-1 Paragraph 5.16.12 (Ref. 2) states that the Secretary of State, within the decision making process, will need to “*give impacts on the water environment more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017*”.
- 6.6.3 NPS EN-1 paragraph 5.16.14 (Ref. 2) requires the Secretary of State to refuse development consent where a project is likely to cause deterioration of a water body or its failure to achieve good status or good potential, unless the requirements set out in the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (Ref. 49) (Regulation 19) are met. NPS EN-1. Paragraph 5.16.16 states that the Secretary of State should also “*consider proposals to mitigate adverse effects on the water environment and any enhancement measures put forward by the applicant and whether appropriate requirements should be attached to any development consent and/or planning obligations are necessary*”.
- 6.6.4 Paragraphs 2.10.85 and 2.10.87 of NPS EN-3 (Ref. 3) recommends the use of sustainable drainage systems and avoiding the use of culverts.
- 6.6.5 In addition to national policy, there is local planning policy of relevance that also seeks to protect water quality in line with the Water Framework Directive. Specifically, Policy 60 (Protecting and Enhancing Doncaster’s Soil and Water Resources) of the Doncaster Local Plan (Ref. 16) makes it clear that proposals that pose unacceptable risks to water quality or quantity will generally not be supported.

Assessment Conclusions

- 6.6.6 **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** presents the findings of an assessment of the likely significant effects on the water environment as a result of the Scheme. It includes consideration of surface water features (such as rivers, streams, ditches, and lakes) and groundwater (in terms of quality, flows, levels and resources), flood risk and demand for water resources.
- 6.6.7 **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** concludes, with the implementation of mitigation measures and good

- practice control measures secured via detailed plans which are to be substantially in accordance with the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]**, that no significant adverse effects are anticipated on the water environment during the construction, operation and maintenance, or decommissioning phases of the Scheme.
- 6.6.8 Since the Scheme includes BESS, **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** also specifically sets out measures to manage the risks associated with battery fire safety and the potential impacts upon water quality in the event of a battery fire. The BESS containers will possess an internal fire suppression system. In the event of an incident, fire water runoff will be contained within the lined gravel filled attenuation basins surrounding the containers within the BESS Area where it will be held and tested before either being released into the surrounding watercourses or taken off site by a tanker for treatment elsewhere. The basin will then be cleaned of all contaminants. The Applicant has engaged with South Yorkshire Fire and Rescue Service throughout the pre application phase, and the approach to manage the risks associated with battery fire safety ensures there is no pathway provided from the potential contaminated fire water to surface water or to infiltrate the ground with no change in impact to the water quality of groundwater features.
- 6.6.9 These control measures are further set out in the **Framework Battery Safety Management Plan [EN010152/APP/7.16]** and **Framework Drainage Strategy (ES Volume III Appendix 9-4) [EN010152/APP/6.3]**.
- 6.6.10 Permanent access across watercourses will be required within the Solar PV Site for the lifetime of the Scheme. **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** assumes that for this an open span bridge will be provided. There are four areas labelled as Bridge Options on **ES Volume II Figure 2-3 [EN010152/APP/6.2]** where the access track will cross watercourses:
- two Bridge Options are proposed for Fenwick Common Drain (one northwest of Field SW3, and one southeast of Field SW5 in the area of the confluence with Fleet Drain),
 - one Bridge Option is proposed on south tributary to Fleet Drain, west of Riddings Farm, northwest of Field NW8, and
 - one southwest of Field SW8 over Ell Wood and Fenwick Grange Drain.
- 6.6.11 The creation of such crossings will result in a direct, localised and a permanent impact. However, no new culverts are proposed and there will not be an interruption of flow, and the new crossings relate to Ordinary Watercourses. Due to the medium importance of these receptors **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** concludes potential impacts will be minor or negligible and therefore not significant.
- 6.6.12 During operation and maintenance, there is the potential for impacts to groundwater quality from any spillages of chemicals used on the Solar PV Site. However, the use of control measures in accordance with those proposed in the **Framework OEMP [EN010152/APP/7.8]** including adoption of good industry practice to manage the risk of chemical spillages will ensure any potential for impact is minimised.

- 6.6.13 A Water Framework Directive (WFD) Assessment has also been prepared and is presented in **ES Volume III Appendix 9-2 Water Framework Directive Assessment [EN010152/APP/6.3]**. The Scheme interacts with four WFD surface water bodies:
- Went from Blowell Drain to the River Don (GB104027064260);
 - Don from Mill Dyke to River Ouse (GB104027064243);
 - Bramwith Drain from Source to River Don (GB104027063290); and
 - Ea Beck from the Skell to River Don (GB104027057591).
- 6.6.14 There are also several tributaries of these water bodies present; these are predominantly unnamed agricultural ditches, drains and springs. These minor watercourses are assessed as part of the catchment WFD water body.
- 6.6.15 The Scheme also interacts with one WFD groundwater body:
- Aire and Don Sherwood Sandstone (GB40401G701000).
- 6.6.16 **ES Volume III Appendix 9-2: WFD Assessment [EN010152/APP/6.3]** concludes that there would be no deterioration in the status of any WFD waterbody classification and no prevention of future improvement in status, given the design and mitigation measures proposed as part of the Scheme.

Appraisal

- 6.6.17 Through appropriate management of construction and decommissioning activities the Scheme will have no significant adverse effects on water environment receptors during these phases.
- 6.6.18 Impacts on surface or groundwater quality from site run-off and the potential for accidental spillages during construction, operation, maintenance and decommissioning activities will be controlled through the implementation of the detailed CEMP, OEMP and DEMP. These will be substantially in accordance with the **Framework CEMP [EN010152/APP/7.7]**, the **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]** submitted as part of this DCO Application. Other control measures to protect water quality will be the form of a detailed battery safety management plan and drainage strategy to be in accordance with the **Framework Battery Safety Management Plan [EN010152/APP/7.16]** and **Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3])** submitted as part of the DCO Application. These measures will ensure that there will be no significant adverse effects arising from the potential contamination of surface water and therefore water quality in the event of a fire associated with the BESS.
- 6.6.19 During operation, within the area of solar PV panels, the impermeable area will remain largely consistent with its pre-development state as solar PV panels are elevated above ground and rainfall will run off them to the ground as it does now. Channelisation from rainfall dripping off the end of solar PV panels will be mitigated for through the planting of native grassland under and surrounding the panels. This planting will intercept and absorb rainfall running off the solar PV panels, preventing it from concentrating and potentially forming channels in the ground. The inclusion of swales as part of the overall Sustainable Drainage Systems (SuDS), will control the rate of flow from new impermeable areas in the BESS Area and On-Site Substation

- towards the receiving watercourses as well as providing a mechanism to treat any contaminants should this be necessary.
- 6.6.20 The potential pollution of watercourses from the BESS and On-Site Substation and access roads is low. The inclusion of swales as part of the SuDS solution is considered to be sufficient to treat the runoff from these areas.
- 6.6.21 The implementation of a detailed Drainage Strategy, which will need to be in accordance with the Framework Drainage Strategy (**ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]**) secured as a requirement in the **draft DCO [EN010152/APP/3.1]**, will ensure that there will be negligible impact to any receiving water feature from surface water runoff or the risk of chemical spillages during routine operation and maintenance.
- 6.6.22 The management of battery fire safety is set out in the **Framework Battery Safety Management Plan [EN010152/APP/7.16]** submitted alongside the DCO application. The **draft DCO [EN010152/APP/3.1]** includes a requirement (requirement 5 of Schedule 2) for the submission and approval of a detailed Battery Safety Management Plan. This will need to be substantially in accordance with the **Framework Battery Safety Management Plan [EN010152/APP/7.16]** and will ensure the implementation of control measures to protect water quality in the event of a fire.
- 6.6.23 The Framework Drainage Strategy (**ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]**) demonstrates the Scheme's outline drainage design reflects natural drainage conditions within the Order limits and will ensure no impact on the flow in receiving surface water features.
- 6.6.24 A Water Management Plan (WMP) will include details for water quality monitoring and pollution prevention and control during construction. The WMP will be a management plan that will be brought forward as part of the detailed CEMP secured by requirement 11 of the **draft DCO [EN010152/APP/3.1]** and to be substantially in accordance with the **Framework CEMP [EN010152/APP/7.7]**. A Water Management Plan will also be required as part of the decommissioning phase and will be secured by requirement 18 of the **draft DCO [EN010152/APP/3.1]** which requires a detailed DEMP.
- 6.6.25 The inspection and maintenance of the SuDS drainage system and watercourse crossings will be implemented in accordance with the detailed OEMP which is secured under requirement 12 of the **draft DCO [EN010152/APP/3.1]** and will need to be substantially in accordance with the **Framework OEMP [EN010152/APP/7.8]** submitted as part of the DCO Application.
- 6.6.26 In summary, the inclusion of mitigation measures as set out within the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]** will ensure that the Scheme will not have a significant adverse effect on water quality during all phases of the Scheme. **ES Volume III Appendix 9-2: WFD Assessment [EN010152/APP/6.3]** concludes that there would be no deterioration in the status of any WFD waterbody classification and no

prevention of future improvement in status, given the mitigation built into the Scheme. The Scheme therefore accords with NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and relevant local plan policies.

6.7 Biodiversity

Planning Policy Context

- 6.7.1 NPS EN-1 (Ref. 2) paragraph 5.4.4 introduces the Habitat Regulations and the Habitats Regulations Assessment (HRA), and states that *“the highest level of biodiversity protection is afforded to sites identified through international conventions”*. The Habitat Regulations set out sites for which an HRA is required, including Special Areas of Conservation and Special Protection Areas.
- 6.7.2 Paragraph 5.4.7 of NPS EN-1 (Ref. 2) also recognises SSSIs as sites of international importance, affording features of SSSIs not covered by an international designation, a high level of protection. Paragraph 5.4.8 states that *“development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted”*. This is unless the benefits, including need, of the development outweigh both its likely impact on the SSSI and any broader impacts on the national network of SSSIs.
- 6.7.3 Sites of regional and local biodiversity and geological interest are outlined in NPS EN-1 (Ref. 2) paragraph 5.4.12, which identifies the important contribution to ecological networks and nature recovery these provide, including wider benefits associated with public access and climate mitigation. This includes local wildlife sites (LWS) with paragraph 5.4.13 confirming that local development plan policies should *“secure their protection from harm or loss but also help to enhance them and their connection to the wider ecological networks”*.
- 6.7.4 Paragraphs 5.4.14 to 5.4.15 (Ref. 2) set out national policy considerations with respect to ancient woodland, ancient trees, and veteran trees stating that the Government is committed to *“maintain and enhance the existing resource of known ancient and veteran trees”* and that *“ancient and veteran trees found outside ancient woodland are particularly valuable”*. NPS EN-1 (Ref. 2) paragraph 5.4.32 states that applicants should *“include measures to mitigate fully the direct and indirect effects of development on ancient woodland, ancient and veteran trees or other irreplaceable habitats during both construction and operational phases”*.
- 6.7.5 NPS EN-1 (Ref. 2) paragraph 5.4.17 states that the applicant should ensure that the *“ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats”*. Opportunities to conserve and enhance these biodiversity interests should be demonstrated by the applicant (NPS EN-1 paragraph 5.4.19). The need to consider biodiversity as part of the design, layout and future phases of proposals is set out in NPS EN-3 paragraphs 2.10.89 and 2.10.90 (Ref. 3).

- 6.7.6 Paragraph 5.4.21 of NPS EN-1 (Ref. 2) outlines the opportunity for nature inclusive design throughout the design process, stating that *“Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains”*.
- 6.7.7 NPS EN-1 (Ref. 2) paragraph 5.4.25 states that applicants should provide sufficient information to the Secretary of State to determine whether an HRA Appropriate Assessment is required.
- 6.7.8 Paragraph 5.4.42 of NPS EN-1 (Ref. 2) sets out that as a general principle, development should *“avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives. Where significant harm cannot be avoided, impacts should be mitigated and as a last resort, appropriate compensation measures should be sought”*.
- 6.7.9 NPS EN-1 (Ref. 2) paragraph 5.4.35 sets out examples of measures that applicants should demonstrate to appropriately avoid, mitigate and compensate impacts to, and enhance biodiversity. This includes, but is not limited to, confining construction activities to minimum areas required for the works; timing construction to limit disturbance; good practice measures in construction and operation to ensure impacts to species and habitats is minimised; restoration of habitats; enhancing existing habitats and where practicable, creating new habitats of value.
- 6.7.10 Paragraph 5.4.41 of NPS EN-1 (Ref. 2) states the *“benefits of nationally significant low carbon energy infrastructure may include benefits for biodiversity interests and these benefits may outweigh the harm to these interests”*. The Secretary of State may take account of such net benefits in decision making.
- 6.7.11 Paragraph 5.4.48 of NPS EN-1 (Ref. 2) requires the Secretary of State to ensure that appropriate weight is attached to designated sites, ecological receptors and any relevant biodiversity and geological interests within the wider environment. Paragraph 5.4.52 states the Secretary of State should give *“due consideration to regional or local designations. However, given the need for new nationally significant infrastructure, these designations should not be used in themselves to refuse development consent”*.
- 6.7.12 NPS EN-1 (Ref. 2) paragraph 5.4.53 explains that the Secretary of State should not grant development consent if the development would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons, and a suitable compensation strategy exists.
- 6.7.13 NPS EN-3 Paragraph 2.5.2 (Ref. 2) adds that proposals for renewable energy infrastructure should demonstrate ‘good design’ by mitigating impacts and effects on ecology. Paragraph 2.10.78 further explains that applicants should use an advising ecologist during the design process to ensure that adverse impacts are avoided, minimised or mitigated in line with the mitigation hierarchy, and to also ensure that biodiversity enhancements are maximised.
- 6.7.14 Solar farms have the potential to increase the biodiversity value of a site, as explained in paragraph 2.10.89 of NPS EN-3 (Ref. 3). In some instances, this can result in significant benefits and enhancements beyond Biodiversity

Net Gain, which result in wider environmental gains which is encouraged. The benefits of low carbon infrastructure may outweigh other harm to biodiversity, as recognised within NPS EN-1 (Ref. 2).

- 6.7.15 Local planning policies contained within the Doncaster Local Plan (Ref. 16) relating to ecology and biodiversity include Policy 29 (Ecological Networks), Policy 30 (Valuing Biodiversity and Geodiversity), Policy 31 (Local Wildlife and Geological Sites) and Policy 32 (Woodlands, Trees and Hedgerows). These policies are in place to protect and enhance ecological and biodiversity features, ensuring that sites nature conservation value are given appropriate weight in the decision making process.

Assessment conclusions

- 6.7.16 **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** provides an assessment of the Scheme's impact on important ecological features and is supported by extensive survey work (see **ES Volume III Appendices 8-2 to 8-9 [EN010152/APP/6.3]**) which confirms the ecological habitats and species likely to be affected by the Scheme. The following protected species surveys and/or associated data analysis have been undertaken: reptiles, badgers, bats, aquatic macrophyte and macroinvertebrate, fish, birds (breeding and non-breeding) and riparian mammal surveys.
- 6.7.17 To support the Secretary of State with their duties under the Habitat Regulations (the Conservation of Habitats and Species Regulations 2017 (as amended)) and in accordance with planning policy, a **No Significant Effects Report (NSER) [EN010152/APP/7.12]** has been prepared. The NSER concludes that there are no likely significant effects associated with the Scheme (alone or in combination) on internationally designated sites, with no loss of functionally linked land.
- 6.7.18 An Arboricultural Impact Assessment (AIA) has been undertaken and is presented in **ES Volume III Appendix 10.7 Arboricultural Impact Assessment [EN010152/APP/6.3]** which considers the likely direct and indirect arboricultural impacts of the Scheme on trees within or immediately adjacent to the Order limits. The design of the Scheme has been developed to avoid or minimise tree loss and impacts, especially to those trees with the greatest quality and value (ancient or veteran trees). The AIA concludes that tree feature loss (including hedgerows) to facilitate the Scheme represents approximately 5,965 m² or 1.2% of the total tree canopy cover surveyed within the Order limits with 98.8% (505,790 m²) of surveyed canopy cover retained. All tree features to be removed are within the Order limits. No veteran or ancient trees are to be removed which is secured via the **Framework CEMP [EN010152/APP/7.7]**.
- 6.7.19 As detailed in the **Biodiversity Net Gain Report [EN010152/APP/7.11]**, the Scheme is predicted to exceed the BNG target of 10% and this is predicted for each habitat type. The Applicant therefore commits to achieving a minimum 10% BNG for all habitat types as secured by the **Framework LEMP [EN010152/APP/7.14]** and requirement 6 in Schedule 2 in the **Draft DCO [EN010152/APP/3.1]**.

Appraisal

Internationally and nationally designated nature conservation sites

- 6.7.20 It is necessary to determine whether the Scheme is likely to have a significant effect on areas that have been internationally designated for nature conservation purposes such as Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar sites, as well as proposed or potential sites (hereafter, European sites).
- 6.7.21 **ES Volume II Figure 8-1: Sites Statutorily Designated for their Biodiversity Value at an International and National Level [EN010152/APP/6.2]** illustrates that there are no internationally or nationally designated sites for nature conservation within the Order limits.
- 6.7.22 Shirley Pool SSSI is located approximately 900 m to the south of the Order limits (from the section of highway within the Order limits at the junction of the A19 and Station Road in the town of Askern). **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** outlines that the Scheme will not impact on Shirley Pool SSSI. As detailed in the **Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17]**, there are no routes for construction traffic that pass within 200m of the SSSI, thus avoiding any potential degradation to sensitive habitats from vehicle pollutants. In addition, the Scheme will implement standard environmental protection measures during construction, such as dust suppression and pollution prevention, to ensure no indirect impacts occur. These measures are set out in the **Framework CEMP [EN01052/APP/7.7]**. The implementation of these measures is secured by requirement 11 of Schedule 2 in the **Draft DCO [EN010152/APP/3.1]** through the detailed CEMP which is to be prepared in substantial accordance with the **Framework CEMP [EN01052/APP/7.7]**. Measures to remove or reduce impacts during decommissioning are included within the **Framework DEMP [EN010152/APP/7.9]**, secured by requirement 18 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.
- 6.7.23 The Humber Estuary designated sites (SAC, SPA, SSSI and Ramsar) are approximately 16 km downstream of the Solar PV Site via the River Don and Dutch River. River and sea lamprey are qualifying species for this SAC. The River Went flows into the River Don and Dutch Rivers approximately 6 km to the east of the Solar PV Site. There is potential connectivity between the Order limits and the Humber Estuary via the River Went and connected drains. There are also records of European eel in the River Went and bullhead in the River Don, which is connected to waterbodies within the Order limits. The **No Significant Effects Report (NSER) [EN010152/APP/7.12]** concludes that there is no potential for the Scheme to result in likely significant effects on the Humber Estuary SPA/ Ramsar/SAC relating to qualifying fish in the construction, operation or decommissioning phases.
- 6.7.24 Measures to protect the health of the wider aquatic environment are set out in the **Framework CEMP [EN01052/APP/7.7]**, which will extend protection to the Humber Estuary SAC/SPA/SSSI/Ramsar.
- 6.7.25 Thorne and Hatfield Moors SPA is located approximately 8 km east of the Solar PV Site and 9.8 km east of the Grid Connection Corridor, whilst 'Hatfield Moor' SAC is located approximately 11km southeast of the Solar PV Site 8.5 km east of the Grid Connection Corridor. There are no ecological or

hydrological connections between the Order limits and these designated sites. Given the distance and lack of connectivity between the Order limits and these sites, there will be no direct impacts on habitats, no fragmentation of habitats, or of populations of species using habitats and no species mortality of any species associated with Thorne and Hatfield Moors SPA and Hatfield Moors SAC.

- 6.7.26 In summary, there are no internationally designated sites for nature conservation within the Order limits, and the Scheme will not have a likely significant effect on a European Site alone or in combination with other proposals, as set out in the **No Significant Effects Report (NSER) [EN010152/APP/7.12]**.

Sites of regional and local biodiversity interest

- 6.7.27 There are 46 non-statutory sites designated for their biodiversity value identified within 2 km of the Order limits. These sites have all been designated as Local Wildlife Sites (LWS) or Candidate Local Wildlife Sites (cLWS) for their biodiversity value at a county level and are known to have supporting value to a wide variety of protected or notable species and/or habitats. The locations of these non-statutory designated sites, relevant to the Scheme, are presented in **ES Volume II Figure 8-2: Sites Non-Statutorily Designated for their Biodiversity Value [EN010152/APP/6.2]**.
- 6.7.28 Four non-statutory designated sites are within the Order limits, these being: Wrancarr Drain and Braithwaite Delves LWS, Trumfleet Pit LWS and Trumfleet Pond LWS, which are all within the Grid Connection Corridor and Went Valley (Part) LWS which is within the Solar PV Site. These LWS are all predominantly designated for their habitats.
- 6.7.29 Went Valley (Part) LWS is within the Solar PV Site (see **ES Volume II Figure 8-2: Sites Non-Statutorily Designated for their Biodiversity Value [EN010152/APP/6.2]**) but is avoided and outside of the developable areas of the Scheme and is within the Ecological Mitigation Area, as presented in **ES Volume II Figure 2-3: Indicative Site Layout [EN010152/APP/6.2]**. The LWS comprises other neutral grassland and the River Went and is setback 10 m from the northern boundary of the Solar PV Site.
- 6.7.30 Wrancarr Drain and Braithwaite Delves LWS, and Trumfleet Pond LWS are both located within the Grid Connection Corridor. Both of these LWS' comprise watercourses, however, HDD methods are being used to drill beneath and avoid direct impacts upon these sites. In addition, Trumfleet Pit LWS is located adjacent to the Grid Connection Corridor and as such will not be directly impacted but has the potential to be indirectly impacted through dust and noise.
- 6.7.31 Mitigation measures, as presented in **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**, will ensure there is no impact on the integrity or the functioning of LWS (through dust generation, noise or visual disturbance); that no construction related pollution would affect these LWS and consequently that there will be no species mortality of any species using these LWS. These standard environmental protection measures will be adopted during construction as set out in the **Framework CEMP [EN010152/APP/7.7]** and are therefore secured by requirement 11 of Schedule 2 of the **draft DCO [EN010152/APP/3.1]**

Ancient woodland, veteran trees and important hedgerows

- 6.7.32 **ES Volume III Appendix 10-7: Arboriculture Impact Assessment [EN010152/APP/6.3]** sets out the potential impact of the Scheme upon trees outlining the extent of tree removal to construct the Scheme; potential impacts upon ancient and veteran trees; incursions into root protection areas and canopy spreads and sets out tree protection measures to be adopted.
- 6.7.33 **ES Volume III Appendix 10-7: Arboriculture Impact Assessment [EN010152/APP/6.3]** notes that 1,211 individual scattered trees were recorded within the Order limits. 117 veteran trees and 22 ancient trees were identified during fieldwork, which are classed as irreplaceable habitats within the DEFRA Statutory Metric.
- 6.7.34 The iterative design process during the development of the Scheme has been undertaken to avoid or minimise impacts to trees where practicable. The Scheme has been designed to ensure that all veteran and ancient trees will be retained. The majority of trees which are not classed as veteran or ancient will be retained and buffered, and measures taken to avoid direct or indirect impacts. As detailed in **ES Volume III Appendix 10-7: Arboricultural Impact Assessment [EN010152/APP/6.3]**, two individual trees, four groups of trees and 32 hedgerows have the potential to be removed, or part removed (in the case of hedgerows) to facilitate the Scheme.
- 6.7.35 There are a total of 136 hedgerows within the Order limits, as described within **ES Volume III Appendix 8-5 Hedgerow Report [EN010152/APP/6.3]**. Hedgerow Surveys identified the presence of 18 important hedgerows as defined by the Hedgerow Regulations 1997 (Ref. 50). The Scheme has been designed to ensure important hedgerows are outside of the developable areas of the Scheme through the use of appropriate buffers.
- 6.7.36 The layout of the Scheme will use existing farm tracks and field openings as the preferred routes for construction access, minimising loss of hedgerows (sections of), where practicable. The majority of hedgerow habitat will be retained; however, some sections will need to be removed to facilitate access, and other sections will be temporarily removed to facilitate construction of cable routes (as shown on the Figures appended to the **ES Volume III Appendix 8-5 Hedgerow Report [EN010152/APP/6.3]**).
- 6.7.37 Tree loss will be mitigated with a scheme of new tree planting as set out in the **Framework LEMP [EN010152/APP/7.14]**. The final requirement for pruning will be reviewed and identified at the detailed design stage and will be confirmed in an Arboricultural Method Statement produced as part of the detailed CEMP secured by requirement 11 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.
- 6.7.38 Measures to protect retained trees and their associated root protection zones will be put in place (e.g. fencing), which will be implemented at an early stage to protect these features from impacts during construction, as detailed in **ES Volume III Appendix 10-7: Arboricultural Impact Assessment [EN010152/APP/6.3]**.

Protected Species and Other Habitats

- 6.7.39 Table 8-9 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** summarises the important ecological features that are relevant to the Scheme. This includes protected species and other habitats within and close to the Order limits. Protected species considered in Table 8-9 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** include aquatic macrophytes, fish, terrestrial invertebrates, reptiles (grass snake), breeding birds, non-breeding birds, bats, badgers, water vole, otter and other mammals (such as brown hare, hedgehog and harvest mouse).
- 6.7.40 Mitigation measures have been incorporated into the Scheme design and/or how it shall be constructed. Through iterative assessment, potential impacts have been predicted and opportunities to mitigate them identified with the aim of preventing or reducing impacts on protected species and habitats where practicable in accordance with the mitigation hierarchy.
- 6.7.41 Buffers are proposed to be implemented for trees, hedgerows, lines of trees and individual trees (in line with British Standard BS 5837), all woodland (15 m), watercourses (10 m where practicable and where open trenching is not required during construction), standing water (at least 20 m) and hedgerows without trees (at least 5 m). Buffers between the Scheme and the habitats ensures protection of protected species.
- 6.7.42 Where practicable, vegetation clearance will be undertaken in advance of construction of the solar infrastructure and at an appropriate time of year to avoid disturbance, injury or mortality of species including nesting birds, Brown Hare, hedgehogs or reptiles. Post-construction, any temporary habitat loss across the Order limits (i.e. where there are temporary construction compounds) will be restored, where required.
- 6.7.43 Measures during construction, operation and maintenance, and decommissioning are proposed within the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]** to manage impacts on protected species and also how to manage invasive species. This includes, Reasonable Avoidance Measures (RAMs), including appropriate buffers (up to 30 m) around any identified active badger setts, or retained trees with bat roost suitability (buffer of 15m) throughout the Order limits. Implementation of measures to avoid animals being injured or killed within construction working areas, such as through the inclusion of perimeter fencing and covering excavations or providing a means of escape, will exclude them from such areas and prevent them from becoming trapped in excavations.

Summary

- 6.7.44 To support the Secretary of State with its duties under the Habitat Regulations (the Conservation of Habitats and Species Regulations 2017 (as amended), a **No Significant Effects Report (NSER) [EN010152/APP/7.12]** has been prepared and concludes there are no likely significant effects associated with the Scheme (alone or in-combination) on internationally designated sites, with no loss of functionally linked land.
- 6.7.45 The Scheme avoids and mitigates all significant adverse effects on internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and habitats, and

veteran trees, during the construction, operation and maintenance, and decommissioning phases. This has been achieved through a considered and iterative design informed by a design team with qualified professional ecologists and includes avoidance, buffers and mitigation measures that will be secured through management plan requirements included in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**.

- 6.7.46 In addition to protecting existing ecological sites and features, the Applicant has also taken opportunities to provide mitigation and enhancement measures within the Order limits to increase biodiversity and provide overall net gains in habitat. The proposed planting design (as outlined in the **Framework LEMP [EN010152/APP/7.14]**) includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits. The Scheme therefore delivers a minimum 10% biodiversity net gain, and significant beneficial impacts on ecological features and habitats.
- 6.7.1 The Scheme is therefore in accordance with NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and local planning policy relating to the protection and enhancement of ecological site and features.

6.8 Climate Change

Planning Policy Context

- 6.8.1 Legislation and policy relating to the need to decarbonise the UK's energy generation system to meet its climate change legal obligations are discussed in Section 5 and 6.2 of this Planning Statement and are not repeated here.
- 6.8.2 While the policy framework focuses on the benefits low carbon infrastructure can bring in mitigating the effects of climate change, it also sets out measures for infrastructure to adapt to climate change. NPS EN-1 (Ref. 2) at paragraph 4.10.1 notes *"If new energy infrastructure is not sufficiently resilient against the possible impacts of climate change, it will not be able to satisfy the energy needs as outlined in Part 3 of this NPS."* This includes the need for infrastructure to be designed for anticipated increases in extreme weather events (i.e. flooding, droughts, heatwaves and storms) and general climatic and seasonal changes.
- 6.8.3 Paragraph 4.10.5 of NPS EN-1 (Ref. 2) states that *"measures implemented to ensure a scheme can adapt to climate change may give rise to additional impacts"*. Applicants are required to take reasonable steps to maximise the use of nature-based solutions alongside other conventional techniques, when preparing measures to support climate change adaptation. Further to this, paragraph 4.10.7 adds that nature-based solutions can also result in biodiversity benefits and net gain.

- 6.8.4 Paragraph 4.10.6 of NPS EN-1 (Ref. 2) highlights that: *“Integrated approaches, such as looking across the water cycle, considering coordinated management of water storage, supply, demand, wastewater and flood risk can provide further benefits to address multiple infrastructure needs, as well as carbon sequestration benefits”*.
- 6.8.5 Paragraph 4.10.8 of NPS EN-1 (Ref. 2) also expects applicants to consider the direct and indirect impacts of climate change *“when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure”*, while paragraphs 4.10.9 to 4.10.12 of NPS EN-1 (Ref. 2) require consideration of the impacts of climate change on development in the ES and state that a range of climate change scenarios should be assessed.
- 6.8.6 Paragraph 4.10.11 of NPS EN-1 (Ref. 2) expects applicants to demonstrate a *“high level of climate resilience built-in from the outset”* and *“how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario”*. In particular for solar development, paragraph 2.4.10 of NPS EN-3 (Ref. 3) expects applicants to consider how plant will be resilient to increased risk of flooding and the impact of higher temperatures.
- 6.8.7 Referring to section 4.10 of NPS EN-1, paragraphs 2.3.1 to 2.3.3 of NPS EN-5 (Ref. 4) advise that, with regard to electricity infrastructure, the resilience of a project to climate change should be assessed in the ES, and applicants should set out how the project would be resilient to flooding, with particular reference to substations.
- 6.8.8 Paragraph 5.3.4 of NPS EN-1 (Ref. 2) requires all proposals for energy infrastructure projects to include a Greenhouse Gas (GHG) assessment, to ensure that appropriate mitigation and adaptation measures are incorporated. Paragraphs 5.3.8 and 5.3.9 provide that the Secretary of State should *“be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development”* and *“that the applicant has taken all reasonable steps to reduce the GHG emissions of the construction and decommissioning stage of the development”* (respectively).
- 6.8.9 In the local context, City of Doncaster Council have declared a climate emergency and committed to becoming carbon neutral by 2040 (Ref. 45). Policies of the Doncaster Local Plan 2015-2035 (Ref. 16) set out how the Council will ensure that proposals for development address and adapt to climate change, including the changes likely to arise through increased flooding from more frequent incidents of extreme weather (Policies 26, 42, 56 and 57).

Assessment Conclusions

- 6.8.10 **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]** presents an assessment of the likely significant effects on the climate as a result of the Scheme. It also presents an assessment of the impacts of climate change on the Scheme and receptors in the surrounding environment.
- 6.8.11 A GHG assessment has been undertaken and is presented in **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**. It concludes that, following the implementation of good practice measures in the **Framework CEMP [EN010152/APP/7.7]** and **Framework DEMP [EN010152/APP/7.9]**,

- the GHG emissions from the construction and decommissioning phases are likely to have a minor adverse and not significant effect on the climate.
- 6.8.12 During its 40-year operation and maintenance phase, the Scheme will have a significant beneficial effect due to its operation and maintenance carbon intensity remaining substantially below that of a gas-fired CCGT generating facility throughout its design life, its role in achieving the rate of transition required by nationally-set policy commitments and supporting the trajectory towards net zero. Based on comparison with a CCGT (which was used as the without-project baseline for the Scheme, assuming electricity would otherwise be generated by this kind of facility), it is estimated that the solar power generation will save over 4 million tCO₂e (tonnes CO₂ equivalent) over the design life of the Scheme, demonstrating the role solar energy generation has to play in the transition to, and longer-term maintenance of, a low carbon economy. In addition, the use of the BESS for grid balancing purposes would deliver a saving of approximately 4.1 million tCO₂e over its design life.
- 6.8.13 Mitigation measures in relation to GHG emissions arising from the Scheme have been embedded within the design and material choices. They include the use of alternative materials with lower embodied GHG emissions where practicable, low-carbon design specifications such as energy-efficient lighting and liaising with personnel on the potential to implement staff minibuses and car sharing options.
- 6.8.14 Section 6.6 of **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]** also outlines a number of adaptation measures that have been incorporated into the Scheme's design and measures that are proposed for the management of the construction and decommissioning phases to increase the resilience of the Scheme to climate change. These measures are set out in further detail in the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]**. The delivery of these mitigation measures will be secured through the detailed CEMP, OEMP and DEMP via Requirements in the DCO.
- 6.8.15 With regard to climate change risks, **ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]** includes attenuation of surface water runoff to minimise flood risk at the Scheme components and has been informed by **ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]**. Infrastructure flood resilience methods have been set (including a requirement for solar PV panels to be set back by 10m from water features).
- 6.8.16 The **Climate Change Risk Assessment (CCRA) (ES Volume III Appendix 6-2: Climate Change Risk Assessment [EN010152/APP/6.3])** assesses the resilience of the Scheme to projected future climate change impacts, considering the mitigation measures that have been designed into the Scheme and Climate Projections over a 40-year period from the Scheme's commissioning (assumed to be 2030). It concludes that all climate change risks during the construction phase, the operation and maintenance phase, and the decommissioning phase, will be negligible to low and not significant.
- 6.8.17 The **In-Combination Climate Change Impact (ICCI) Assessment (ES Volume III Appendix 6-3: ICCI Environmental Technical Disciplinary Risk Assessment [EN010152/APP/6.3])** assesses future climate change

projections and the sensitivity of receptors to both climate change and the Scheme. No significant effects as a result of the effects of the Scheme combined with the impacts of climate change are anticipated.

Appraisal

- 6.8.18 The significant GHG savings achieved throughout the lifetime of the Scheme demonstrate the role solar energy generation has to play in the transition to, and longer-term maintenance of, a low carbon economy. The Scheme directly supports the UK Government's policy of decarbonising electricity generation therefore according with NPS EN-1 and recent energy and climate change policy and legislation referred to in Section 2 of this Planning Statement. Without low-carbon energy generation projects such as the Scheme, the average grid GHG intensity will not decrease as is projected, which would adversely affect the UK's ability to meet its carbon reduction targets.
- 6.8.19 The Scheme's design and the measures that are proposed for the management of the construction and decommissioning phases will ensure the Scheme has resilience to climate change risks in the future and therefore deliver a robust energy facility for 40 years.
- 6.8.20 In summary, the Scheme's significant beneficial carbon savings during operation and its proposed design and control measures during all phases of the Scheme demonstrates the Scheme's compliance with climate mitigation and adaptation policies set out in national and local planning policy.

6.9 Agricultural Land

Planning Policy Context

- 6.9.1 Paragraph 5.11.12 of NPS EN-1 (Ref. 2) states that "*Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5)*".
- 6.9.2 Paragraph 5.11.34 of NPS EN-1 (Ref. 2) requires the Secretary of State to ensure "*applicants do not site their scheme on the best and most versatile agricultural land without justification*". Paragraph 5.11.34 further adds that "*Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality*".
- 6.9.3 NPS EN-3 (Ref. 3) provides further clarification and guidance on how policies relating to Best and Most Versatile (BMV) agricultural land apply to the development of solar NSIPs. Paragraph 2.10.30 states that "*Whilst the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land...the impacts of such are expected to be considered*". NPS EN-3 (Ref. 3) paragraph 2.10.31 recognises that at solar NSIP scale, it is likely that applicants' development will use some agricultural land. Applicants should, pursuant to paragraph 2.10.31 of NPS EN-3, "*explain their choice of site, noting the preference for development to be on suitable brownfield, industrial, and low and medium grade agricultural land*".
- 6.9.4 NPS EN-3 (Ref. 3) paragraph 2.10.33 states that "*if necessary, field surveys should be used to establish the ALC grades in accordance with the current, or any successor to it, grading criteria and identify the soil types to inform*

soil management at the construction, operation, and decommissioning phases in line with the Defra Construction Code". Paragraph 2.10.145 requires the Secretary of State to *"take into account the economic and other benefits of the best and most versatile agricultural land"* and *"ensure that the applicant has put forward appropriate mitigation measures to minimise impacts on soils or soil resources"*.

- 6.9.5 In terms of local planning policy, Policy 60 (Protecting and Enhancing Doncaster's Soil and Water Resources) of the Doncaster Local Plan (Ref. 16) only supports proposals involving *"significant loss of the best and most versatile agricultural land (grades 1, 2 and 3a)"* where *"there are no other suitable alternative locations on lower quality agricultural land (or non-agricultural land) available"* or *"the land can be reinstated back to its previous state (where possible)"*.
- 6.9.6 National and local planning policy is consistent in seeking to minimise the impact on BMV land and to guide development away from BMV land where possible.

Assessment conclusions

- 6.9.7 **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** presents an assessment of the likely significant effects on socio-economics and land use as a result of the Scheme. This assessment covers the impacts of the Scheme on Best and Most Versatile (BMV) agricultural land and soils within the Order limits.
- 6.9.8 As set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**, the Applicant has sought to minimise impacts to BMV land by identifying land for the Solar PV Site which avoids BMV land. This involved consideration of the Agricultural Land Classification (ALC) mapping (Ref. 48) and the brownfield land register for the administrative area of the City of Doncaster. Previously developed land of the size required and available for the Scheme was not identified and BMV land identified on the ALC mapping was avoided where possible. Further details of the selection of the Solar PV Site, confirming that the location for the Scheme is suitable for a large-scale solar farm is provided in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**.
- 6.9.9 In line with NPS EN-3 paragraph 2.10.33, an ALC survey of the land within the Solar PV Site has been undertaken and is appended at **ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report [EN010152/APP/6.3]**. As agreed with City of Doncaster Council, no ALC survey has been undertaken in the Grid Connection Corridor, because there would be no above ground infrastructure in the Grid Connection Corridor and therefore any impacts will be temporary during construction.
- 6.9.10 The ALC soil survey of the Solar PV Site (**ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report [EN010152/APP/6.3]**) was undertaken between February 2023 and May 2023 for the majority of the Solar PV Site. This was supplemented with a survey in June 2024 which focussed on the south and south western parts of the Solar PV Site. In total the two surveys provided full coverage of the Solar PV Site and confirmed that the majority of the Solar PV Site (88%) is ALC Grade 3b land, which is not classified as BMV land. In addition, the Solar PV Site contains some Grade 4 land (2%) and some non-agricultural land (3%), therefore totalling

- 93% non-BMV land In total, only 7% (30.2 ha) of the land within the Solar PV Site is classified as BMV land (1% comprising of Grade 2 land and 6% comprising of Grade 3a land).
- 6.9.11 Based on the Defra Natural England Provisional ALC dataset (Ref. 51) (see **ES Volume II Figure 12-4: Predicted Agricultural Land Classification [EN010152/APP/6.2]**), the Grid Connection Corridor comprises predominantly (82%) ALC Grade 4 land (poor quality agricultural land), with the remaining being Grade 3 land (good to moderate quality agricultural land).
- 6.9.12 Permanent land take may be required within the Solar PV Site for the construction of the On-Site Substation. The 2 ha required for the construction of the On-Site Substation was included within the ALC soil survey and was identified as Grade 3b (not BMV land). Permanent land take will also be required for planting. Based on the landscaping plans and the ALC survey, 7.54 ha of land will be required for new hedgerow planting of which 0.006 ha (59.5 sqm) will be Grade 2 agricultural land, 0.77 ha (7,740.9 sqm) will be Grade 3a agricultural land and the remainder will be Grade 3b or less agricultural land. This implies permanent land take of BMV land totalling 0.78 ha (7,800.5 sqm).
- 6.9.13 As less than 1 ha of the land permanently required is BMV land, **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** assesses the magnitude of impact to be very low and, therefore, the effect of the Scheme on the use of BMV agricultural land is assessed to be negligible, which is not significant.
- 6.9.14 The land required for the duration of the Scheme will be unavailable for farming activities, although there is potential for grazing by sheep for management of the grassland. This impact is temporary and reversible, given that after operation, farming activities can resume (except land that may be permanently required for the On-Site Substation and planting).
- 6.9.15 Land within the Grid Connection Corridor would only be affected during construction, while the Grid Connection Cables are installed via a shallow and narrow trench. This is anticipated to require 12 months to complete, following which the land would be restored and could return to its previous use. During operation and maintenance, all of the land within the Grid Connection Corridor would therefore be available for farming.
- 6.9.16 Measures to mitigate against damage to the structure, function and resilience of soil resources during construction and operation and maintenance are set out in the **Framework CEMP [EN010152/APP/7.7]** and the **Framework OEMP [EN010152/APP/7.8]**. A **Framework Soil Management Plan (Framework SMP) [EN010152/APP/7.10]** has also been prepared. The Framework SMP includes measures to ensure that soil quality is not degraded during construction and operation and maintenance. Requirement 15 in Schedule 2 of the **draft DCO [EN010152/APP/3.1]** will secure the approval of a detailed SMP that must be substantially in accordance with the Framework SMP and implemented as approved.
- 6.9.17 Taking into account the proposed mitigation measures which ensure that the soil resource is protected and given that the loss of BMV agricultural land is minimal (after operation of the Solar PV Site and after construction for the Grid Connection Corridor), **ES Volume I Chapter 6: Chapter 12: Socio-**

Economics and Land Use [EN010152/APP/6.1] concludes that the Scheme will result in negligible (not significant) effects on the use of BMV land during construction and operation.

- 6.9.18 As set out in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]**., all Solar PV Panels, Solar PV Mounting Structure, cabling, inverters, transformers, switchgear, BESS Containers and the containerised unit of the Operations and Maintenance Hub would be removed from the Solar PV Site and recycled or disposed of in accordance with good practice and market conditions at that time. The only permanent features remaining on the Solar PV Site will be the On-Site Substation (on a worst-case assumption that it is not decommissioned) and any structural planting. The future of the Grid Connection Cables, Grid Connection Line Drop and On-Site Substation would be agreed with NGET prior to the commencement of decommissioning. Taking into account of the short-time frame of any disruption to farming activities during decommissioning and the return of the Solar PV Site as available to farming practices, it is concluded that the decommissioning phase of the Scheme would not result in any significant effects.

Appraisal

- 6.9.19 Agricultural land quality was a key consideration in the Applicant's site selection process. As set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]** and the **Design and Access Statement [EN010152/APP/7.2]**, Grades 1 and 2 BMV agricultural land shown on the Defra Natural England Provisional ALC dataset (Ref. 51) (see **ES Volume II Figure 12-4: Predicted Agricultural Land Classification [EN010152/APP/6.2]**), were excluded from further consideration within City of Doncaster Council's administrative area. This resulted in the identification of an area of land for the Solar PV Site shown as Grade 4 with some Grade 3. Brownfield land was also considered by checking the local authority brownfield register. No suitable or available areas of brownfield or non-agricultural land were identified.
- 6.9.20 The ALC surveys confirmed that 7% of the Solar PV Site would be classified as BMV land in areas to be occupied by Solar PV panels, Ecology Mitigation Area (including part of the Heritage Buffer Area) and the BESS. All these areas can be restored to agricultural use by the landowner at decommissioning, with all structures removed and stored topsoil returned. In addition, disturbance to agricultural land within the Grid Connection Corridor will be short term as the land would be reinstated following construction.
- 6.9.21 Although the Scheme is to be operational for numerous years, it will be temporary with requirement 18 in the **draft DCO [EN010152/APP/3.1]** securing a time limited consent for 40 years. On this basis, and in accordance with **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**, there will therefore be no significant adverse effects with respect to the loss of BMV land. This is because areas of solar PV, Ecological Mitigation Area and BESS can be restored to agricultural use at decommissioning, with all structures removed and topsoil returned. The Scheme will result in the potential change of use of 0.78 ha of the Solar PV Site currently in arable use. Whilst this is a potential permanent loss of BMV

land, it is not significant and will be replaced by landscaping, which will have beneficial ecological and landscape impacts.

- 6.9.22 In summary, the Scheme's location maximises the use of poorer quality agricultural land and, apart from relatively small area of land proposed for structural planting, will not result in the permanent loss of BMV land, due to the Scheme being decommissioned following 40 years of operation.
- 6.9.23 In summary the Scheme maximises the use of poorer quality agricultural land, minimises impacts on best and most versatile agricultural land and includes mitigation measures to reduce impacts on the soil resource. It is justified in policy terms for the following reasons:
- a. The urgent need for CNP infrastructure such as the Scheme with a presumption in favour of consent, as discussed within Section 5 of this Planning Statement and the **Statement of Need [EN010152/APP/7.3]**. On this basis, the use of arable land and some BMV is therefore necessary.
 - b. The lack of suitable and available alternative sites in the vicinity of the Existing National Grid Thorpe Marsh Substation with a lower ALC grading that is not constrained by other environmental, planning and land use factors.
 - c. The design of the Solar PV Site has minimised the use of BMV land and reduced impacts where practicable through siting the likely permanent elements of the Scheme (such as the Substation) outside of BMV land.
 - d. The majority of the impact of the Scheme on agricultural land is reversible which is secured 40 years after final commissioning through requirement 18 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**. The majority of the agricultural resource is therefore not lost and there is only a very small amount of BMV loss (0.78 ha) within the Solar PV Site which is providing a landscape and ecological enhancement benefit.
- 6.9.24 Overall, the Scheme has sought to minimise the use of BMV where practicable and where this is used, this is justified. The Scheme therefore accords with NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and local planning policies.

6.10 Historic Environment

Planning Policy Context

- 6.10.1 As stated in NPS EN-1 (Ref. 2) paragraph 5.9.1 "*The construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface of the ground*".
- 6.10.2 Paragraph 5.9.3 of NPS EN-1 (Ref. 2) sets out the different types of heritage assets and states "*the sum of the heritage interests that a heritage asset holds is referred to as its significance*", this also includes the setting within which the heritage asset is located. Paragraph 5.9.4 outlines the different types of designated heritage assets, which are those with "*a level of significance that justifies official designation*", while paragraph 5.9.5 sets out that heritage assets may not currently be designated but are "*demonstrated to be of equivalent significant to designated heritage assets of the highest*

- significance*". These non-designated heritage assets are required to be considered subject to the policies for those that are designated. Paragraph 5.9.7 of NPS EN-1 (Ref. 2) requires the Secretary of State to consider the impacts of development on other non-designated heritage assets.
- 6.10.3 NPS EN-1 paragraph 5.9.9 (Ref. 2) requires the applicant to "*undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA, and describe these along with how the mitigation hierarchy has been applied in the ES*". Paragraph 5.9.10 of NPS EN-1 (Ref. 2) sets out that the ES should describe the significance of heritage assets and their setting, and paragraph 5.9.11 of NPS EN-1 (Ref. 2) states that this should include a desk based assessment and, where necessary, field evaluation. The level of detail should be proportionate to the importance of the heritage assets. Paragraph 5.9.12 (Ref. 2) requires that applications contain sufficient information to enable the extent of impacts on the significance of any heritage assets to be understood.
- 6.10.4 Paragraph 5.9.17 of NPS EN-1 (Ref. 2) states "*Where the loss of the whole or part of a heritage asset's significance is justified, the Secretary of State will require the applicant to record and advance understanding of the significance of the heritage asset before it is lost (wholly or in part)*", this should be proportionate to the asset's significance and the impact to the asset.
- 6.10.5 NPS EN-1 paragraph 5.9.23 (Ref. 2) makes reference to the Secretary of State needing to comply with regulation 3 of the Decision Regulations (Ref. 12) which are discussed in Section 2 of this Planning Statement.
- 6.10.6 NPS EN-1 paragraph 5.9.27 (Ref. 2) states that "*When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance*".
- 6.10.7 NPS EN-1 paragraph 5.9.28 (Ref. 2) states "*any harm or loss of significance affecting any designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification*".
- 6.10.8 Regarding decision making, in cases where substantial harm to a heritage asset would result, NPS EN-1 paragraph 5.9.31 (Ref. 2) explains that: "*Where the proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss*".
- 6.10.9 In cases where harm is less than substantial, NPS EN-1 paragraph 5.9.32 (Ref. 2) establishes a lower threshold for the need to demonstrate that the benefits of the scheme outweigh impacts on a designated heritage asset, stating that "*where the proposed development will lead to less than substantial harm to the significance of the designated heritage asset, this harm should be weighed against the public benefits of the proposal...*".
- 6.10.10 Paragraph 5.9.33 of NPS EN-1 (Ref. 2) states that "*in weighing applications that directly or indirectly affect non-designated heritage assets, a balanced*

judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset”.

- 6.10.11 Paragraph 4.2.16 of NPS EN-1 (Ref. 2) discusses how the Secretary of State will consider the balance of benefits and impacts in relation to CNP infrastructure (such as the Scheme) where the NPS (or any other planning policy) requires an outweighing of harm. This states that where residual impacts remain after the mitigation hierarchy has been applied, in all but the most exceptional circumstances the residual impacts will be outweighed by the urgent need for CNP infrastructure, and therefore “...*the Secretary of State will take as the starting point for decision making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances*”.
- 6.10.12 Paragraph 4.2.17 of NPS EN-1 (Ref. 2) follows this by providing a non-exhaustive list of policy tests that the Secretary of State will consider the need case for CNP infrastructure satisfies. This includes the requirement for the substantial public benefits of a project to outweigh substantial harm or loss of a heritage asset. It states that: “...*the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests...where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional*”.
- 6.10.13 Given that the need case for, and public benefits of, CNP infrastructure is sufficient to outweigh substantial harm to a heritage asset, and noting that the list of policy tests in NPS EN-1 paragraph 4.2.17 (Ref. 2) is not exhaustive, it can be inferred that the need case for, and public benefits of, CNP infrastructure will also (and to an even greater degree) outweigh impacts on the significance of a heritage asset that amount to less than substantial harm.
- 6.10.14 NPS EN-3 (Ref. 3) paragraphs 2.10.107 and 2.10.108 notes that solar PV developments can impact the setting of heritage assets as well as potentially having direct impacts on archaeological deposits. However, paragraph 2.10.110 (Ref. 3) also highlights that Solar PV development has the potential to result in a positive effect on heritage assets, for example, by removing fields from regular ploughing and utilising shoes or low-level piling to protect archaeological deposits.
- 6.10.15 Paragraph 2.10.118 of NPS EN-3 (Ref. 3) recognises the importance of setting on the significance of heritage assets, with large-scale solar farms having the potential to cause significant impacts on assets depending on their “*scale, design and prominence*”. Paragraph 2.10.119 adds “*Applicants may need to include visualisations to demonstrate the effects of a proposed solar farm on the setting of heritage assets*”.
- 6.10.16 Paragraph 2.10.137 of NPS EN-3 (Ref. 3) state that the ability to microsite elements of solar development during construction should be an important consideration by the Secretary of State when assessing the risks posed by development on archaeology. Paragraph 2.10.138 (Ref. 3) provides that the Secretary of State should consider granting consents allowing for micro siting so that precise locations can be amended during construction, for example where any previously unknown archaeology is discovered.

6.10.17 Paragraph 2.10.160 of NPS EN-3 (Ref. 3) requires the Secretary of State to take into account the length of time consent is sought for when considering indirect effects on the historic environment, including any effects the development may have on the setting of designated heritage assets.

6.10.18 Chapter 11 of the Doncaster Local Plan 2015-2035 (Ref. 16) contains the development management policies which apply to the historic environment of the Borough. These policies follow the significance-led approach of national policy in the NPPF (Ref. 13) and seek to protect and enhance the historic environment, ensuring new development mitigates against potential harm (See Policies 34, 35, 36, 37, 38 39, 40 and 41 in Appendix B: Local Policy Accordance Tables of this Planning Statement).

Assessment conclusions

6.10.19 **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]** and its supporting **appendices [EN010152/APP/6.3]** provide an assessment of the likely significant effects of the Scheme on heritage assets. This includes a description of the significance of the heritage assets and the contribution of their setting to their significance.

6.10.20 A detailed baseline is set out in **ES Volume III Appendix 7-2: Cultural Heritage Desk-Based Assessment [EN010152/APP/6.3]**. This includes the results of a geophysical survey undertaken on the Solar PV Site between May and October 2023 (refer to **ES Volume III Appendix 7-4: Geophysical Survey Report [EN010152/APP/6.3]**) and is informed by interim fieldwork results of trial trenching.

Designated heritage assets

6.10.21 There are no designated heritage assets within the Order limits.

6.10.22 There are no World Heritage Sites, Registered Parks and Gardens, Registered Battlefields, or Protected Wrecks within the Order limits (or the wider 5 km study area). There are no conservation areas within the Order limits. There are three Conservation Areas within the wider 5km Study Area, beyond 3km from the Solar PV Site (and beyond 1km from Grid Connection Corridor). These include, Campsall, Owston and Fisblake Conservation Areas. The Scheme would not lead to any significant adverse effects on any of these conservation areas.

6.10.23 It is reported in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]** that the Scheme will result in significant residual effects on the settings of the following designated heritage assets during construction:

- a. Fenwick Hall moated site scheduled monument, is approximately 90 m west of Field SE1 and is surrounded by the Solar PV Site but is excluded from the Order limits.
- b. Thorpe in Balne moated site, chapel and fishpond scheduled monument, located approximately 180 m west of the Grid Connection Corridor and approximately 4 km south of the Solar PV Site.

6.10.24 The setting of Fenwick Hall moated site is defined by its location within open countryside, and a short distance from the medieval core of the village of Fenwick. Elements of the medieval use of the surrounding landscape, including ridge and furrow ploughing and identifiably medieval land packages

and field boundaries, also contribute to the historic functional setting of the asset.

- 6.10.25 Mitigation, in the form of intervening hedgerows and a designed buffer area in all directions around Fenwick Hall moated site will reduce views of the Scheme when looking towards and away from the asset itself, and preserve an immediate surrounding of open agricultural land. However, the construction phase of the Scheme is still likely to affect the ability to understand and appreciate the heritage interests of the asset.
- 6.10.26 The impact of the introduction of the physical form and appearance of the Scheme during construction will result in a continued significant effect on the setting of the designated heritage asset through the operation and maintenance phase. However, this effect would be reversible upon decommissioning of the Scheme.
- 6.10.27 Significant residual effects are also reported on Thorpe in Balne moated site, chapel and fishpond, which is located approximately 180 m west of the Grid Connection Corridor. The construction phase of the Grid Connection Corridor, which may include a temporary compound and construction machinery and traffic, may slightly affect the ability to understand and appreciate the heritage interests of this asset. However, this significant adverse effect is limited to the construction phase and will therefore be short-term and temporary.
- 6.10.28 A significant cumulative effect has been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm. This is discussed further in Section 6.16 of this Planning Statement.

Non-designated heritage assets

- 6.10.29 There are a total of five non-designated heritage assets located within the Order limits, four of which are located within the Solar PV Site and one within the Grid Connection Corridor. The location of the assets is identified on **ES Volume II Figure 7-2: Non-Designated Heritage Assets [EN010152/APP/6.2]**. All these assets are recorded on the Historic Environment Record (HER) as unclassified and undated cropmarks representing possible Iron Age / Romano-British settlement activity.
- 6.10.30 In addition, as a result of the geophysical survey and trial trench evaluation undertaken for the Scheme, multiple areas of archaeological activity have been identified within the Solar PV Site, all of which represent Iron Age / Romano-British settlement activity and comprising ditched enclosures, internal divisions, roundhouses, pits and postholes. Areas of ridge and furrow cultivation have also been identified across the Solar PV Site, which may be medieval to post-medieval in date.
- 6.10.31 The assessment of effects has identified potential physical impacts to known buried archaeological remains located within the Solar PV Site and Grid Connection Corridor. However, it is concluded that, with the implementation of mitigation, residual adverse effects on these non-designated assets would not be significant. Mitigation measures include design measures, such as the use of pre-cast concrete blocks rather than piled mounts for the solar PV mounting structures within the Solar PV Site to enable preservation in situ of archaeological remains or micro-siting of elements of the Scheme to avoid archaeological remains. Avoiding physical impacts to these assets would

result in no impact to their historical and archaeological interests and no effect to their heritage value.

6.10.32 Areas of archaeological activity within the Solar PV Site that have been identified as requiring additional mitigation, as well as potential mitigation strategies including preservation in-situ through the selective use of pre-cast concrete blocks, archaeological excavation and further assessment, are set out in the **Draft Archaeological Mitigation Strategy [EN010152/APP/7.19]**. A Final Archaeological Mitigation Strategy, which will be agreed with South Yorkshire Archaeology Service, is secured by requirement 10 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

6.10.33 Mitigation in the form of a heritage buffer corridor (see **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]**) along the northern extent of the Fleet Drain excludes all construction, operation and decommissioning activities in this area and allows for preservation in-situ of these archaeological remains. This area is also required for ecological mitigation, but this would not result in any below ground impacts as it comprises the retention and management of the existing ground conditions. No impacts are therefore anticipated on the non-designated heritage assets, resulting in no effect from the Scheme.

Harm Assessment

6.10.34 A **Heritage Statement** (Appendix C of this Planning Statement) has been prepared which sets out the harm predicted upon seven designated heritage assets. The assets are the same as those listed at paragraph 7.6.31 of **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]** which were scoped into the ES for further assessment. The **Heritage Statement** concludes that four of the assets will be subject of less than substantial harm, at the lower end of the spectrum. The remaining three are those that have been assessed as having significant adverse effects in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**:

- a. Thorpe in Balne moated site, chapel and fishpond scheduled monument;
- b. Fenwick Hall moated site scheduled monument; and
- c. Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm (a significant cumulative effect has been identified on these listed buildings which is considered in Section 6.16 of this Planning Statement).

6.10.35 The assessment concludes that the significant adverse effects to the three designated assets resulting from the Scheme can reasonably be equated with less than substantial harm. The Scheme would therefore not result in substantial harm to these designated heritage assets.

6.10.36 Whilst some non-designated heritage assets will be impacted by the Scheme, none are of schedulable quality and therefore, are not subject to the harm tests set out in the relevant planning policy and guidance.

Appraisal

6.10.37 The Applicant has undertaken an iterative design process which responds to policy requirements, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic

environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant adverse effects on cultural heritage and archaeological assets. As set out in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**, mitigation measures that have been incorporated into the Scheme design include:

- a. The exclusion from development of a number of fields immediately surrounding the listed buildings at Fenwick Hall Farm and Lily Hall (at Riddings Farm) and the Scheduled Monument Fenwick Hall moated site, so as to preserve the open, pasture fields in their immediate surrounds.
- b. Heritage buffer area in the field adjacent to the Scheduled Monument Fenwick Hall moated site. This Heritage Buffer Area incorporates a 20 m setting buffer as agreed with Historic England, and has been extended to the full extents of the field to incorporate archaeological remains that may be associated with the moated site.
- c. Enhancement of existing hedgerows along Lawn Lane to reduce visual intrusion and change to setting of the non-designated Hags Farm and Croft Farm and to protect the character of the approach to the designated assets at Fenwick Hall and Riddings Farm.
- d. Replanting/enhancement of existing hedgerows/boundaries that are remnants of the medieval/post-medieval historic landscape in order to maintain the historic connectivity with associated heritage assets such as Fenwick Hall moated site.
- e. Retention and enhancement of hedgerows identified as 'important' hedgerows.
- f. Enhancement of existing hedgerows in proximity to designated heritage assets in order to screen views of the Scheme and reduce potential impacts to their setting, including along the western-most extent of the Solar PV Site.
- g. Heritage buffer areas for areas of archaeological interest identified from the archaeological evaluation surveys, of potentially high sensitivity to impacts. These areas include archaeological remains that may be associated with the Scheduled Monument Fenwick Hall moated site in Field SE1; and possible Iron Age/Romano-British settlement corridor that extends along the northern extent of the Fleet Drain through Fields NE11, NE12, NE10, NE8, and SE1 ((see **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]**). Where heritage buffer areas also correlate with other environmental discipline mitigation areas, there will be no below ground impacts that could result in impacts to archaeological remains.

6.10.38 The design features described above demonstrate that the Applicant has taken care to develop the Scheme in a way that avoids, reduces and mitigates impacts on archaeology and heritage features, and accords with the mitigation hierarchy.

6.10.39 **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]** identifies there to be a significant residual adverse effect on Fenwick Hall moated site scheduled monument for the lifetime of the Scheme and for Thorpe in Balne moated site, chapel and fishpond scheduled monument, during construction

only. The designated assets have been assessed in the **Heritage Statement** (see Appendix C of this Planning Statement) to result in 'less than substantial harm' owing mainly to the temporary and reversible change to the setting of the assets.

- 6.10.40 Significant cumulative effects have also been identified upon two Grade II listed buildings at Riddings Farm (comprising the Barn and granary immediately to the northwest of Lily Hall and the Dovecote and attached building on west side of farmyard at Riddings Farm) and these are discussed in Section 6.16 of this Planning Statement.
- 6.10.41 With regard to non-designated heritage assets, following the results of additional evaluation surveys within the Grid Connection Corridor, and the final fieldwork report for trial trenching within the Solar PV Site, mitigation measures may be deployed which would enable preservation in-situ of archaeological remains, resulting in no impact and no effect, therefore resulting in no significant residual effect.
- 6.10.42 In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, as set out in Section 5 of this Planning Statement, including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.
- 6.10.43 Given the above, consideration of the prescribed matters set out in Regulation 3 of the Decision Regulations (Ref. 12) (discussed in Section 2 of this Planning Statement) does not materially alter the planning balance for the Scheme.
- 6.10.44 Overall, the Scheme has followed the mitigation hierarchy in seeking to protect and conserve heritage assets where practicable, and the public benefits of the Scheme outweigh the harm, in line with national policy and regulations and also with relevant local policies.

6.11 Noise and Vibration

Planning Policy Context

- 6.11.1 Paragraph 5.12.6 of NPS EN-1 (Ref. 2) requires a noise assessment to be prepared where noise and vibration impacts are likely to arise and sets out the methodology for this assessment. Paragraph 5.12.9 of NPS EN-1 (Ref. 2 **Error! Reference source not found.**) adds that operational noise impacts, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other relevant guidance.
- 6.11.2 Paragraphs 2.10.120 to 2.10.126 of NPS EN-3 (Ref. 3) set out how applicants should consider potential noise and vibration impacts of construction traffic with respect to solar projects. No other typical noise sources from solar farms are identified in NPS EN-3.
- 6.11.3 Paragraph 2.9.39 of EN-5 (Ref. 4) notes that for *"the assessment of noise from substations, standard methods of assessment and interpretation using the principles of the relevant British Standards are satisfactory"*.

- 6.11.4 NPS EN-1 (Ref. 2) expects energy NSIPs to demonstrate good design with regard to mitigating noise impacts. Specifically, paragraph 5.12.15 of NPS EN-1 requires projects to “*demonstrate good design through selection of the quietest or most acceptable cost-effective plant available; containment of noise within buildings wherever possible*”. It also suggests the optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission. Paragraph 4.7.3 of NPS EN-1 (Ref. 2), and paragraph 2.5.2 of NPS EN-3 (Ref. 3) also explains that ‘good design’ should mitigate impacts such as noise.
- 6.11.5 NPS EN-1 (Ref. 2) paragraph 5.12.17 states that the Secretary of State:
“*should not grant development consent unless they are satisfied that the proposals will meet the following aims, through the effective management and control of noise:*
- *avoid significant adverse impacts on health and quality of life from noise*
 - *mitigate and minimise other adverse impacts on health and quality of life from noise*
 - *where possible, contribute to improvements to health and quality of life through the effective management and control of noise”.*
- 6.11.6 Paragraphs 5.12.13 to 5.12.16 of NPS EN-1 (Ref. 2) set out national planning policy requirements with respect to mitigation. This states that in considering mitigation measures, the hierarchy approach for the consideration of noise impacts should be adopted as set out in paragraph 6.11.3 above. This will ensure compliance with NPS EN-1, the Noise Policy Statement for England (NPSE) (Ref. 52), the NPPF (Ref. 13) and Planning Practice Guidance (PPG) (Ref. 14). This includes adopting a hierarchy approach for the consideration of noise impacts. Paragraphs 2.10.9 and 2.10.10 of EN-5 (Ref. 4) also lists mitigation measures, including consideration of quieter cost-effective plants.
- 6.11.7 In applying the hierarchy approach to considering potential impacts upon noise, the NPSE (Ref. 52) sets out definitions for significant adverse effects and adverse effects. This is described as:
- a. Lowest Observed Adverse Effect Level (LOAEL) – the level above which, as an average response, adverse effects on health and quality of life can be detected; and
 - b. Significant Observed Adverse Effect Level (SOAEL) – the average response level above which, as an average response, significant adverse effects on health and quality of life occur.
- 6.11.8 The NPSE clarifies that where the impact associated with noise lies between the Lowest Observed Adverse Effect Level (LOAEL) and the Significant Observed Adverse Effect Level (SOAEL), that “*all reasonable steps should be taken to mitigate and minimise effects.*”
- 6.11.9 Policy 54 (Pollution) of the Doncaster Local Plan (Ref. 16) is of relevance, requiring development to be acceptable in terms of noise and vibration.

Assessment Conclusions

- 6.11.10 **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** provides an assessment of the likely significant effects of the Scheme with respect to noise and vibration, in the context of the SOAEL and LOAEL which are identified in the NPSE (Ref. 52).
- 6.11.11 Noise sensitive receptors have been identified through a desktop study of aerial imagery and mapping and are presented in **ES Volume II Figure 11-1: Noise Monitoring and Receptor Locations [EN010152/APP/6.2]**. The selection of receptors (a total of 33 residential receptors) was agreed with the relevant stakeholders (City of Doncaster Council and North Yorkshire Council). No non-residential noise sensitive receptors were identified.
- 6.11.12 In accordance with the NPSE, all reasonable steps to minimise the effects of noise on PRoW users would be taken during the construction, operation and maintenance, and decommissioning phases of the Scheme. These measures are set out in the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]**.
- 6.11.13 The mitigation measures with respect to noise and vibration are set out in full in Section 13.7 of **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]**. During construction and decommissioning, the measures include:
- a. Ensuring that, where reasonably practicable, noise and vibration are controlled at source (for example, by selecting inherently quiet plant and low vibration equipment);
 - b. Use of modern plant, complying with applicable UK noise emission requirements;
 - c. Limiting noise-generating activities near residential properties to the hours between 08:00 and 18:00 from Monday to Friday and between 08:00 and 13:00 on Saturday with the exception of emergency works; and
 - d. Setting core working hours on site from 07:00 to 19:00 Monday to Friday and 07:00 to 13:00 on Saturday, daylight hours permitting.
- 6.11.14 During operation, the mitigation measures include:
- a. Plant selection accounting for the level of noise emissions;
 - b. Design layout to minimise noise at receptors, including locating the Field Stations at a distance of greater than 250m from residential properties and BESS Area at a distance of greater than 500m from residential properties.
- 6.11.15 A construction noise monitoring scheme will be developed as required in the **Framework CEMP [EN010152/APP/7.7]** following appointment of the principal contractor and prior to commencement of construction works.
- 6.11.16 **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** concludes that there would be no exceedances of the SOAEL during construction, operation and maintenance and decommissioning phases within the Solar PV Site, and therefore residual effects are not significant.

- 6.11.17 Horizontal Directional Drilling (HDD) activities are proposed for cable installation at ten locations (one within the Solar PV Site and nine within the Grid Connection Corridor). No exceedances of SOAEL (and therefore no significant residual effects) due to daytime HDD activities within the Grid Connection Corridor are predicted. However, overnight HDD activities may be required in the event of emergencies and have the potential to cause sleep disturbance, resulting in the potential for a significant adverse effect at three receptors (R12, R17 and R31) during construction.
- 6.11.18 Mitigation measures for HDD activities have therefore been identified and are set out in the **Framework CEMP [EN010152/APP/7.7]**. This would include the use of a temporary acoustic fencing around HDD boundaries and the implementation of a minimum distance of 85 m between HDD work sites and sensitive receptors when finalising the locations of HDD pits. With this mitigation in place, the residual adverse effect is considered to be not significant.
- 6.11.19 It is also concluded in **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** that vibration effects from construction activities do not exceed the SOAEL and are therefore not significant.
- 6.11.20 Noise from construction traffic is assessed in **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]**, which concludes that residual effects due to changes in noise because of construction traffic are predicted to be not significant. The traffic survey locations are illustrated on **Volume II Figure 13-2: Traffic Survey Locations [EN010152/APP/6.2]**. There would be no heavy vehicle movements along any low traffic flow roads, with additional traffic on such roads consisting of light vehicles. As additional light vehicle movements (approximately 16 per hour) do not change the type of noise already experienced at receptors along low-flow roads, the additional traffic would not result in an adverse effect at these receptors.
- 6.11.21 The operational noise assessment within **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** considers noise from plant within the Solar PV Site only as noise from cabling along the Grid Connection Corridor would not generate perceptible noise. The assessment has not considered operational vibration as there are no sources of vibration during the operation and maintenance phase with the potential to cause significant effects.

Appraisal

- 6.11.22 With the implementation of mitigation measures significant adverse noise and vibration effects during the construction, operation and decommissioning of the Scheme will be avoided at sensitive receptors. The Scheme design and measures to be implemented during all phases of the Scheme's phasing will minimise adverse effects where practicable, as set out in **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]**. These include design measures representing Best Practicable Means (BPM) during construction and decommissioning, the consideration of plant selection, layout of the Solar PV Site, including locating and orienting noise generating infrastructure in a sensitive manner to minimise operational noise at sensitive receptors.
- 6.11.23 A hierarchy of mitigation measures is contained within the **Framework CEMP [EN010152/APP/7.7]** which will ensure that significant adverse noise

and vibration effects do not occur in the unlikely event of requiring to undertake HDD works at night and will be agreed once the principal contractor for these works is appointed. These measures include avoiding trenchless activities within 200 m of sensitive receptors and the use of temporary acoustic fencing depending on the location, plant and timing of works.

- 6.11.24 In addition, consideration has been given to traffic routing, timing and access points to the Scheme to minimise noise impacts at existing receptors and the management of construction traffic on the highway network through the **Framework CTMP [EN010152/APP/7.17]**, which will inform a detailed CTMP to be secured through requirement 13 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.
- 6.11.25 In summary, it is concluded in **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** that the Scheme will avoid significant adverse effects during daytime construction, operation and decommissioning by implementing the mitigation outlined in paragraphs 6.11.11 and 6.11.12. The Scheme has been carefully designed in relation to noise and vibration in accordance with paragraph 4.7.3 of NPS EN-1 (Ref. 2). There will also be no significant residual noise or vibration effects as a result of the Scheme, following the implementation of mitigation measures for the unlikely of needing to undertaken HDD activities at night.
- 6.11.26 With the mitigation measures proposed and good design, the Scheme meets the three aims of paragraphs 5.12.17 of NPS EN-1 (Ref. 2), EN-3 (Ref. 3) and EN-5 (Ref. 4) as well as the NPSE (Ref. 52), NPPF (Ref. 13) and PPG (Ref. 14).
- 6.11.27 It is also noted that the duration of any construction noise and vibration effects and construction traffic noise effects are considered to be temporary, short term and leaving no permanent residual effect once the works are complete.
- 6.11.28 Overall, the Scheme provides is in accordance with NPS EN-1 (Ref. 2), EN-3 (Ref. 3), EN-5 (Ref. 4) and relevant local planning policies with regard to the effective management and control of noise from the Scheme and the acceptability of noise and vibration impacts.

6.12 Transport and Access

Planning Policy Context

- 6.12.1 Section 5.14 of NPS EN-1 (Ref. 2) sets out the policy requirements for the consideration and mitigation of transport related impacts on NSIP energy development confirming at paragraph 5.14.4 that the consideration and mitigation of traffic and transport impacts is “*an essential part of the Government’s wider policy objectives for sustainable development*”.
- 6.12.2 Paragraph 5.14.5 of NPS EN-1 (Ref. 2) requires applicants to include a Transport Appraisal within the ES, where a project is likely to have significant transport implications. Paragraph 5.14.6 requires applicants to consult with National Highways and Highways Authorities with regard to the assessment and mitigation that informs the application.
- 6.12.3 As set out in paragraph 5.14.7 of NPS EN-1 (Ref. 2), applicants should prepare a travel plan including demand management and monitoring

- measures to mitigate impacts on transport. It states that *“The applicant should also provide details of proposed measures to improve access by active, public and shared transport”*.
- 6.12.4 Paragraph 5.14.13 of NPS EN-1 (Ref. 2) highlights that *“Regard should be given to the needs of freight at all stages in the construction and operation of the development”*.
- 6.12.5 Paragraph 5.14.14 states that the *“Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that... control numbers of HGV movements to and from the site in a specified period during its construction and possible on the routing of such movements... and ensure satisfactory arrangements for reasonably foreseeable abnormal disruption”*.
- 6.12.6 Paragraph 5.14.18 recognises that energy NSIPs may result in substantial impacts on the surrounding infrastructure, and requires the applicant to mitigate these impacts, including during the construction phase. Paragraph 5.14.21 of NPS EN-1 (Ref. 2) states that development should only be refused consent on highway grounds if there would be an *“unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision”*.
- 6.12.7 Paragraph 2.10.35 of NPS EN-3 (Ref. 3) requires applicants to *“consider the suitability of access routes to the proposed site for both the construction and operation of the solar farm”* especially since solar farms are often located in areas served by minor roads.
- 6.12.8 NPS EN-3 (Ref. 3) sets out policy requirements with respect to PRoW, recognising at paragraph 2.10.41 that PRoW may need to be temporarily closed or diverted to facilitate development and at paragraph 2.10.44 setting out the expectation that *“applicants should consider and maximise opportunities to facilitate enhancements to the public rights of way and the inclusion, through site layout and design of access, of new opportunities for the public to access and cross proposed solar development sites”*. Paragraph 2.10.45 requires applicants to set out detail on how PRoW will be managed through the inclusion of an outline PRoW management plan as part of a Scheme. Paragraphs 2.10.120 to 2.10.126 set out construction considerations relating to traffic and transport and highlights the need to assess potential routes for delivery of materials and components, including abnormal traffic movements.
- 6.12.9 Policy 13 (Promoting Sustainable Transport in New Developments) of the Doncaster Local Plan (Ref. 16) requires new development to provide Transport Statements, Transport Assessments and Travel Plans (as appropriate) and to ensure that it does not result in *“unacceptable impact on highway safety, or severe residual cumulative impacts on the road network”*.

Assessment conclusions

- 6.12.10 **ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1]** presents an assessment of the impacts of the construction traffic resulting from the Scheme on sensitive receptors. The associated **Transport Assessment (TA) (ES Volume III Appendix 13-4: Transport Assessment**

[EN010152/APP6.3] considers whether the Scheme will be acceptable in transport and highway terms. The TA provides details of the anticipated characteristics of journeys generated by construction of the Scheme including private worker vehicles, tractor-trailer vehicles, Heavy Goods Vehicles (HGVs) and Abnormal Indivisible Loads (AILs). The scope and methodology of the TA have been agreed with the Local Highway Authority (City of Doncaster Council).

6.12.11 The Scheme has been designed, as far as practicable, to avoid and reduce impacts and effects on Transport and Access through the process of design development, and by proposing other mitigation measures. The delivery of these mitigation measures will be through the detailed CEMP, detailed OEMP, detailed CTMP and detailed DEMP which are secured via requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. The detailed documents are required to be substantially in accordance with the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]**, **Framework CTMP [EN010152/APP/7.17]** and **Framework DEMP [EN010152/APP/7.9]** that have been prepared and submitted as part of the DCO Application.

6.12.12 A **Framework CTMP [EN010152/APP/7.17]**, forming part of the DCO Application, sets out the routes that HGVs would adhere to when accessing the Solar PV Site and Grid Connection Corridor and measures to improve the sustainability of worker travel, along with other measures to minimise transport effects from construction traffic.

6.12.13 Measures to implemented during the construction and decommissioning phases include:

- a. Suitable access points to enable movement of vehicles into the Solar PV Site and Grid Connection Corridor, where appropriate;
- b. The creation of a junction bellmouth where required for access points, to prevent any potential safety impact associated with construction activity (details on how the junction bellmouth will be designed are provided in the **Framework CTMP [EN010152/APP/7.17]**);
- c. Routing of HGVs and AILs in accordance with the findings of the routing review for large vehicles as set out in the **Framework CTMP [EN010152/APP/7.17]**;
- d. Restricting HGV movements to certain routes: Moss Road, Strategic Road Network (SRN), A19;
- e. Directing construction staff (e.g. non-HGV vehicles) to take the most direct route to the Scheme using 'higher' order roads, such as A and B classified roads of the SRN;
- f. Encouraging local construction workers to car-share to reduce single occupancy car trips;
- g. Implementing a shuttle bus service to transfer non-local workers to/from local worker accommodation or pick-up locations (assumed minibus capacity of 25), to reduce vehicle trips on the surrounding highway network.

6.12.14 Measures to be implemented during the operation and maintenance phase include:

- a. Restriction of HGV movements to certain times of day (between 9:00 and 17:00) and to the SRN and other 'higher' order roads where applicable, noting that HGV movements are anticipated to be low across the 40-year operation and maintenance phase;
- b. Provision of sufficient protection / separation between the existing PRow and the Solar PV Site where necessary using perimeter fencing installed at a minimum distance of 20 m on either side of the centre of the PRow, where solar infrastructure lies to both sides, or 15 m if solar infrastructure is to one side only;
- c. Main operational access to the Solar PV Site will be via Lawn Lane; and
- d. Emergency access to the BESS Area and the On-Site Substation via Fenwick Common Lane / Hags Lane and from Moss Road.

6.12.15 The **Transport Assessment (TA) (ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP6.3])** considers the capacity of the network to safely accommodate the proposed construction traffic. It is acknowledged that the greatest impact is likely to occur during the construction and decommissioning phases of the Scheme. During operation and maintenance, the level of activity across the Order limits would be minimal and limited to vegetation management (across the Solar PV Site), equipment maintenance, servicing and replacement, routine inspections. There would be no requirement for regular HGV or AIL movements, or a need for more than two permanent staff on site at any one time (equating to four additional workers per month), during this phase.

6.12.16 Traffic will be distributed across the Grid Connection Corridor and the Solar PV Site during the construction programme. HGVs and tractor/trailers will move around the Order limits along set routes and construction workers are expected to travel to the varying construction compounds taking the fastest route possible to them.

6.12.17 The vehicular access arrangements for the Solar PV Site to be used during construction is set out in Section 11.1 of the **TA (ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP6.3])**. This confirms the use of Fenwick Common Lane / Hags Lane for 75% of inbound staff movements and Moss Road for the remaining 25%. All staff will exit via Moss Road, which will be also be used for all HGV movements (entering or exiting the Site). Existing field accesses are proposed for operation and maintenance access where this is practicable and would reuse construction accesses.

6.12.18 With regard to increase in total traffic during construction, 23 road links are assessed for traffic impacts in **ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1]**. The assessment concludes that the following residual significant adverse effects are anticipated as a result of the construction traffic of the Scheme:

- a. Major adverse effect at link 9 (Moss Road – Askern Village);
- b. Moderate adverse at links 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss), 13 (Marsh Road) and 14 (Thorpe Bank).

6.12.19 These significant effects are generally driven by low baseline traffic movements experienced at these links such that the relatively low number of

additional traffic movements as a consequence of the Scheme results in high percentage increases in traffic. The overall magnitude of impact on the road network will be low at all link locations, aside from Link 11 (Fenwick Common Lane), during the hours of 07:00-19:00. This link will be used by 75% of workers to access the Solar PV Site.

- 6.12.20 Significant residual effects on road links are also anticipated during construction, with respect to severance and driver delay:
- a. Major adverse effect at link 9 (Moss Road – Askern Village);
 - b. Moderate adverse at links 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss) and 13 (Marsh Road).
- 6.12.21 With regard to Non Motorised User (NMU) amenities and fear and intimidation, the assessment identifies moderate adverse (significant) residual effects on pedestrians, equestrians and cyclists at links 9 (Moss Road – Askern Village), 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane) and 13 (Marsh Road).
- 6.12.22 Negligible and minor adverse residual effects are identified on road users in relation to road safety during construction and decommissioning.
- 6.12.23 The decommissioning phase is planned to commence 40 years after final commissioning and is expected to lead to effects that are comparable to (though likely to be an overestimate of) effects during construction.
- 6.12.24 During operation, the predicted traffic levels are significantly lower than during construction and decommissioning. Operational effects are therefore expected to be negligible and not significant.
- 6.12.25 Access to all existing PRoW will be retained during construction, with no PRoW closures proposed and a limited number of PRoW diversions necessitated by the Scheme. During this phase, Fenwick 16 and Moss 6 will be diverted to a temporary route. After the construction phase, Moss 6 will be permanently diverted to the track that will have provided access during construction. Sykehouse 29 and Fenwick 14 will also be permanently diverted. The **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]** explains the details of the proposed diversions and appropriate measures for the management of PRoW during the various stages of the Scheme. This document will inform a final PRoW Management Plan, which is secured through requirement 17 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

Appraisal

- 6.12.26 The assessment of effects in **ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1]** concludes that, following the implementation of mitigation measures, potentially significant adverse effects at road links 9 (Moss Road – Askern Village), 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss), 13 (Marsh Road) and 14 (Thorpe Bank) remain – all relating to increase in traffic and some also with regard to severance and driver delay and effects on NMUs. However, the routes currently experience low baseline traffic numbers which is the reason for the higher percentage increase in traffic and, therefore, the overall impact is not deemed significant with regard to increase in traffic. In

addition, effects are temporary in nature and not due to a lack of capacity on the road network. During operation, traffic generation will be negligible.

- 6.12.27 In line with the policy requirements set out in NPS EN-3 (Ref. 3) in respect of PRoW, access to all existing PRoW will be retained during construction, with only a very limited number of PRoW diversions necessitated by the Scheme. During the Scheme operation, the existing PRoW passing through or running adjacent to the Order limits are expected to be unaffected, aside from Sykehouse 29, Moss 6 and Fenwick 14 that will be permanently diverted. The permanent diversions of these PRoW would increase their journey length by minimal distances (less than 50 m) and no significant adverse effects on PRoW users are therefore anticipated.
- 6.12.28 Mitigation measures will be implemented to minimise the traffic impacts of the Scheme on the highway network during the construction and decommissioning phases. These measures are secured through management plans which are requirements of Schedule 2 in the **draft DCO [EN010152/APP/3.1]** and will need to be substantially in accordance with the **Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17]** and **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]** as well as the **Framework CEMP [EN010152/APP/7.7]** for the construction phase, and the **Framework DEMP [EN010152/APP/7.9]** for the decommissioning phase.
- 6.12.29 Overall, with the implementation of mitigation measures including careful management of the Scheme's traffic it will not result in an unacceptable or severe impact on highway safety and is therefore in accordance with the transport and access policies of NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and Policy 16 of the Doncaster Local Plan (Ref. 16).

6.13 Socio-economic Impacts and Health

Planning Policy Context

- 6.13.1 Section 5.13 of NPS EN-1 (Ref. 2) sets out the socio-economic considerations for energy projects. Paragraph 5.13.2 of NPS EN-1 (Ref. 2) requires applicants to undertake an assessment of socio-economic impacts at local or regional levels as part of the ES.
- 6.13.2 NPS EN-1 (Ref. 2) paragraph 5.13.4 sets out the scope of matters which the applicant's socio-economic assessment within the ES should consider, stating that it may include details on "*the creation of jobs and training opportunities*", "*the contribution to the development of low-carbon industries*", "*any indirect beneficial impacts for the region, in particular in relation to use of local support services and supply chains*", "*effects (positive and negative) on tourism and other users of the area*", "*the impact of a changing influx of workers*" during the different phases of the project, and cumulative effects.
- 6.13.3 Applicants are required under paragraph 5.13.5 of NPS EN-1 (Ref. 2) to describe the existing socio-economic conditions in the area(s) surrounding a proposed development and how the project's socio-economic impacts correlate with local policy. Paragraph 5.13.6 of NPS EN-1 (Ref. 2) explains that socio-economic impacts may be linked to other impacts, for example the visual impact of a development, which may impact on tourism and local business.

- 6.13.4 Paragraphs 5.13.8 and 5.13.11 of NPS EN-1 (Ref. 2) set out that the decision maker should consider *“whether mitigation measures are necessary to mitigate any adverse socio-economic impacts”* and any legacy benefits that may arise, respectively.
- 6.13.5 Paragraph 5.13.12 of NPS EN-1 (Ref. 2) adds that an *“employment and skills plan detailing arrangements to promote local employment and skills development opportunities...”* may be included as a requirement if the Secretary of State wishes.
- 6.13.6 Human health is also a consideration in the Energy NPSs and relates to socio-economic impacts. Paragraphs 4.4.1 and 4.4.2 of NPS EN-1 (Ref. 2) sets out that energy infrastructure has the potential to impact on the health and well-being of the surrounding population, with potential direct impacts including *“increased traffic, air or water pollution, dust odour, hazardous waste and substances, noise, exposure to radiation and increases in pests”*. Paragraph 4.4.3 also adds *“New energy infrastructure may also affect the composition and size of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport, or the use of open space for recreation and physical activity.”*
- 6.13.7 Paragraphs 4.4.4 and 4.4.5 of NPS EN-1 (Ref. 2) sets out how the applicant should assess the potential impact of the Scheme on human health within the ES. This includes *“identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate”, in isolation and cumulatively with other developments where appropriate. Paragraph 4.4.6 states that “opportunities should be taken to mitigate indirect impacts, by promoting local improvements to encourage health and wellbeing this includes potential impacts on vulnerable groups within society and impacts on those with protected characteristics under the Equality Act 2010, i.e. those groups which may be differentially impacted by a development compared to wider society as a whole”.*
- 6.13.8 NPS EN-1 (Ref. 2) paragraph 4.4.7 recognises that the aspects of energy infrastructure most likely to have a detrimental impact on the population are subject to their own separate regulation which will constitute effective mitigation of them. Therefore, *“it is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008”*.
- 6.13.9 Policy 50 (Health) of the Doncaster Local Plan (Ref. 16) seeks to *“promote strong, vibrant and healthy communities by ensuring a high quality environment is provided with local services to support health, social and cultural wellbeing”*.

Assessment conclusions

- 6.13.10 **ES Volume I Chapter 12: Socio-Economics and Land Use** [EN010152/APP/6.1] provides an assessment of socio-economic effects including effects upon employment, PRow, private and community assets during the various phases of the Scheme, in accordance with paragraph 5.13.2 of NPS EN-1 (Ref. 2).
- 6.13.11 In accordance with paragraphs 4.4.1 and 4.4.2 of NPS EN-1 (Ref. 2), the Applicant has also considered the potential effects to human health. As

described in the **EIA Scoping Report (ES Volume III Appendix 1-1: EIA Scoping Report [EN010152/APP/6.3])** and accepted in the **EIA Scoping Opinion (ES Volume III Appendix 1-2: EIA Scoping Opinion [EN010152/APP/6.3])**, a standalone assessment was scoped out of the EIA and effects in the following ES chapters have the potential to impact on both physical and mental health,:

- a. **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** (Section 9.9);
- b. **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]** (Section 11.8);
- c. **ES Volume I Chapter 14: Other Environmental Topics, Air Quality, [EN010152/APP/6.1]** (Section 14.2);
- d. **ES Volume I Chapter 14: Other Environmental Topics, Ground Conditions [EN010152/APP/6.1], Section 14.4, ES Volume III Appendix 14-3: Preliminary Risk Assessment - Solar PV Site [EN010152/APP/6.3], and ES Volume III Appendix 14-4 Preliminary Risk Assessment - Grid Connection Corridor [EN010152/APP/6.3];**
- e. **ES Volume I Chapter 14: Other Environmental Topics, Major Accidents and Disasters [EN010152/APP/6.1]** (Section 14.5); and
- f. **ES Volume I Chapter 14: Other Environmental Topics, Electromagnetic Fields [EN010152/APP/6.1]** (Section 14.7).

6.13.12 In accordance with NPS EN-1 paragraph 4.4.6 the Applicant has also considered impacts on vulnerable groups and those with protected characteristics under the Equality Act 2010 and has prepared **an Equalities Impact Assessment [EN010152/APP/7.20]** detailing this assessment.

Employment, local accommodation and services

6.13.13 **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** describes how the construction phase would generate temporary employment and Gross Value Added (GVA) impacts for local communities and businesses, which are assessed as minor beneficial effects for the local economy. Accounting for leakage, displacement and multiplier effects, it is estimated that the Scheme will support on average 225 total net jobs per annum during the construction phase. Of these, 102 jobs per annum would be expected to be taken up by residents within a 60-minute drive time from the Scheme and 123 by residents outside of this area. By applying the GVA per construction worker in Yorkshire and the Humber (£63,314 per head) to employment generated from the construction phase, it is calculated that the Scheme would contribute approximately £12.6 million per year to the national economy during the construction phase, of which £5.7 million would be of benefit to the area within 60-minute driving time of the Scheme.

6.13.14 There would be no effect on employment during the operation and maintenance phase of the Scheme, because there would be no net change in the employment supported by activities on the Solar PV Site as a result of the Scheme. Existing agricultural activities on land within Solar PV Site are estimated to support one full time employment (FTE) job, which would make way for a FTE job in managing the Scheme during operation.

- 6.13.15 A similar number of jobs are anticipated during the decommissioning phase of the Scheme as during the construction phase (225 total net jobs per annum), resulting in a minor beneficial effect. Once the Scheme is decommissioned, if the land is returned to farming, it is assumed that the net change in employment will be zero as it is likely that a similar level of agricultural employment (as at present) would be supported.
- 6.13.16 Section 5 of the **Framework Skills, Supply Chain and Employment Plan (FSSCEP) [EN010152/APP/7.15]** has been prepared to maximise and proactively expand the economic benefits of the Scheme for the local community. Requirement 16 of Schedule 2 of the **draft DCO [EN010152/APP/3.1]** requires the submission and approval by the relevant planning authority of a detailed SSCEP prior to the commencement of the development.
- 6.13.17 The jobs created by the Scheme will be in the renewable energy sector, specifically relating to solar installation, but also electricity transmission and supply chain. Where possible, there will be a preference for local staffing, and it is likely that the appointed contractors will employ trainees and apprentices as part of the construction workforce, as set out in the **FSSCEP [EN010152/APP/7.15]**.

Local Community Severance and PRow

- 6.13.18 Access to all existing PRow will be retained during construction, with no proposed PRow closures and a limited number of PRow diversions necessitated by the Scheme (Fenwick 16, Fenwick 14, Moss 6, Sykehouse 29). During operation, the existing PRow which pass through or run adjacent to the Order limits would be unaffected, with the exception of Sykehouse 29, Moss 6 and Fenwick 14 which would be permanently diverted. The permanent diversions of these PRow would increase their journey length by minimal distances (less than 50 m) and would be constructed to the same or better standard as existing PRow, meaning no significant adverse effects on PRow users are therefore anticipated. The full extent of the proposed PRow diversions is shown in **ES Volume II Figure 2-2: Public Rights of Way** and set out in the **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]**. During decommissioning, it is anticipated that the PRow will be managed in a similar way to construction.
- 6.13.19 Other impacts of the Scheme, in terms of direct land use (in particular on agricultural land holdings); severance or accessibility restrictions to local residents and use of healthcare infrastructure by workers; and development land (planning applications) are also discussed in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**. The assessment concludes that no significant adverse effects are anticipated from any of those impacts during the various phases of the Scheme.
- 6.13.20 Land use impacts related to Best and Most Versatile (BMV) agricultural land and mineral safeguarding areas are also presented in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** and compliance with policies relating to these topics are discussed in Section 6.9 and 6.14 of this Planning Statement respectively.

Private and Community Assets

- 6.13.21 As stated in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**, there are no residential properties, local businesses,

open spaces, community facilities or visitor attractions within the Solar PV Site and Grid Connection Corridor and therefore the Scheme will not result in any direct land use impacts.

- 6.13.22 The Scheme would be located within some agricultural land holdings. The fields within the Solar PV Site would be available to be returned to arable use following completion of the decommissioning. Ground physical infrastructure would be removed and the Solar PV Site returned to landowners in the same condition as at the end of operation. The Grid Connection Corridor, if required, would intersect a number of agricultural land holdings. However, trenching will occur for a limited time only and there will be no associated impact following construction due to the infrastructure being located below ground. Prior to the start of construction, a detailed soil management plan, which will need to substantially accord with the **Framework Soil Management Plan [EN010152/APP/7.10]** will be prepared. This will ensure soils are not degraded by construction works and farming activities can re-commence following completion of the construction works.
- 6.13.23 No direct land use impacts on residential properties, businesses, community facilities, open spaces or visitor attractions are anticipated. Activities related to the construction of the Scheme, for example increases in construction traffic, have the potential to impact the accessibility of a small number of residential properties, business premises, community facilities, open space, visitor attractions, agricultural land holdings and development land for residents. However, only a minor adverse effect is anticipated in this regard, which is considered not significant. Operational traffic is anticipated to be very low and therefore it is not anticipated that there would be any adverse impacts on community connectivity due to traffic generation during the operation and maintenance phase. It is assessed that there would be no effect on private and community assets, including development land, during the operation and maintenance phase of the Scheme.
- 6.13.24 **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** concludes that the overall magnitude of the socio-economic effects resulting from the Scheme are assessed to be minor adverse, which is considered to be not significant. This assessment reflects the fact that there are no land take impacts apart from those relating to agricultural land holdings which are temporary and reversible, and that there are a limited number of significant adverse traffic and access effects which could imply severance for socio-economic receptors.

Human Health

- 6.13.25 Chapters of the ES have presented effects of the Scheme which have the potential to impact on both physical and mental health (see list of chapters in 6.13.11 above).
- 6.13.26 Construction of the Scheme has the potential to impact on human health from increased traffic, air and water pollution, dust, hazardous substances and noise. However the **Framework CEMP [EN010152/APP/7.7]** and the **Framework CTMP [EN010152/APP/7.17]** include measures to mitigate these potential impacts to an acceptable level.
- 6.13.27 Core working hours for the Scheme are set out in the **Framework CEMP [EN010152/APP/7.7]** and avoid nighttime working and working on Saturday

- after 1300, Sundays or Bank Holidays. Emergency working may extend beyond these hours where, if the relevant action is not taken, there will be adverse effects on human health, safety and the environment.
- 6.13.28 To protect human health, mitigation measures have been included as part of the Scheme's construction methodology to minimise adverse effects where practicable, as set out in **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]** and secured in the **Framework CEMP [EN010152/APP/7.7]** and **Framework CTMP [EN010152/APP/7.17]**. These include good practice construction methods and the consideration of noise in construction plant selection.
- 6.13.29 Measures to mitigate transport, air quality and highway safety effects from increased traffic during construction are detailed in Section 13.6.6 of **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]**. Some measures include (but are not limited to): vehicles using the most direct route to and from the Site, vehicles using 'higher' order roads such as A and B classified Roads, promotion of car sharing and implementation of shuttle bus transfers to reduce trips. These measures will ensure so far as possible that the Scheme does not adversely impact on the local highway network or local air quality through increased transport emissions.
- 6.13.30 Given the number of construction workers that will attend Site through the construction and decommissioning phases, the Scheme has potential to create extra demand on healthcare facilities. However, due to the limited scale of impacts upon healthcare services, the short-term duration of effect and reversibility, the magnitude of these adverse impacts is assessed to be very low as explained in **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]**.
- 6.13.31 To address potential operational effects on health, the layout of the Scheme has been carefully designed, including locating and orienting noise generating infrastructure in a sensitive manner to minimise operational noise at sensitive receptors. Design parameters which include minimum distances of noise generating infrastructure from residential receptors are secured in the **Outline Design Parameters Statement [EN010152/APP/7.4]**. The **Framework OEMP [EN010152/APP/7.8]** also outlines measures to mitigate and monitor operational noise through plant selection and careful layout design and therefore committing to levels no higher than those presented in the **ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]**.
- 6.13.32 The management of impacts on PRow are discussed in paragraph 6.13.17 above and detailed in the **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]**. The Scheme design also incorporates appropriate buffers where solar PV is adjacent to PRow to reduce visual impacts on PRow users. PRow located within the Solar PV Site would be retained (with some localised diversions) and available for use throughout the operation and maintenance phase of the Scheme, with these increased buffers.
- 6.13.33 The **Equalities Impact Assessment [EN010152/APP/7.20]** states no direct discrimination, harassment and victimisation of any protected characteristic groups has been identified as a result of the Scheme. There is potential for the Scheme to result in disadvantage for some protected characteristic groups, such as through increased noise during construction, operation and decommissioning, as well as increased traffic on the local road network

during construction and decommissioning. However, such impacts, and others identified, will be suitably mitigated through the measures set out in other documents supporting this DCO Application, such as the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]**, and **Framework DEMP [EN010152/APP/7.9]**.

Appraisal

6.13.34 **ES Volume I Chapter 12: Socio-Economics and Land Use**

[EN010152/APP/6.1] identifies socio economic benefits of the Scheme through the generation of 225 total net jobs per annum and an estimated generation of £12.6 million per year to the national economy during the construction phase, of which £5.7 million would be of benefit to the local area within 60-minute driving time of the Scheme. The chapter also concludes that there are no likely significant adverse socio-economic effects associated with the Scheme during its construction, operation and maintenance, and decommissioning phases.

6.13.35 **A Framework Skills, Supply Chain and Employment Plan**

[EN010152/APP/7.15] has been prepared and includes measures to maximise and pro-actively expand the economic benefits of the Scheme for the local community. The provision of a detailed SSCEP is secured via requirement 16 of the **Draft DCO [EN010152/APP/3.1]** and this must be in substantial accordance with the Framework SSCEP.

6.13.36 The construction of the Scheme will contribute to the local economy, and the development of low-carbon industries at the local and regional level as well as nationally through upskilling workers in the renewable energy sector. Good quality work protects against social exclusion through the provision of income, social interaction, identity and purpose which the Scheme will help to deliver through its construction phase. Similar economic benefits are also anticipated for the decommissioning phase.

6.13.37 Chapters of the ES have presented effects of the Scheme which have the potential to impact on both physical and mental health, but none have identified likely significant adverse effects during the various phases of the Scheme with respect to the impacts on health identified in section 4.4 of NPS EN-1. Impacts will be managed to acceptable levels through the suite of management plans proposed and secured via the **Draft DCO [EN010152/APP/3.1]**. A Community Liaison Group will be also set up and administered (referred to in the **Framework CEMP [EN010152/APP/7.7]**, **Framework DEMP [EN010152/APP/7.9]**, and within the **Draft DCO [EN010152/APP/3.1]** (as per Requirement 3 in Schedule 2 for construction), with a Community Liaison Officer (or alternative role) to lead discussions with local communities during construction and decommissioning. The Applicant considers that this will facilitate liaison between representatives of people living in the vicinity of the Order limits and other relevant organisations in relation to the construction of the Scheme. This ongoing dialogue regarding the construction and decommissioning phases, is considered an appropriate approach during construction and subsequently decommissioning, allowing feedback on impacts of the Scheme and mitigation measures to be considered and acted upon if required.

6.13.38 In conclusion, it is considered that the Scheme is in accordance with the socio-economic and health policies of NPS EN-1 (Ref. 2) and Policy 50 of the Doncaster Local Plan (Ref. 16).

6.14 Mineral Safeguarding

Planning Policy Context

6.14.1 Whilst the Solar PV Site and the Existing National Grid Thorpe Marsh Substation do not fall within any Minerals Safeguarding Area (MSA) or associated 250 m buffer, the Grid Connection Corridor does cross a MSA for sand and gravel and its associated buffer, as shown on the Proposals Map of the Doncaster Local Plan (Ref. 16) and in **ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN010152/APP/6.3]**.

6.14.2 Paragraph 5.11.19 of NPS EN-1 (**Error! Reference source not found.**(Ref. 2**Error! Reference source not found.**) states that 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.*” Further to this, NPS EN-1 (Ref. 2) paragraph 5.11.28 adds that the Secretary of State should ensure that “*appropriate mitigation measures have been put in place to safeguard mineral resources*”, should a development have an impact on an MSA.

6.14.3 Policy 61 (Protecting for and Safeguarding Mineral Resources) of the Doncaster Local Plan (Ref. 16) sets out the tests that proposals for non-mineral development within MSAs and the 250m buffer zone will be required to meet. It states that proposals for non-mineral development within MSAs and the 250 m buffer zone will be supported where it can be demonstrated that:

“1. consideration has been given to the long term economic value of the mineral; or

2. non-mineral development can take place without preventing the economically viable mineral resource from being extracted in the future; or

3. the proposal can feasibly incorporate the prior extraction of any minerals of economic value in an environmentally acceptable way; or

4. the need for the development outweighs the need to safeguard the area for future minerals extraction; or

5. the development is permitted, minor or temporary in nature (see safeguarding exemptions in Table 20).”

Appraisal

6.14.4 The Grid Connection Corridor enters the MSA buffer at Moss Villa and Trumfleet, then proceeds to enter the MSA at White House Farm, where it follows existing linear features including roads such as Marsh Road and Thorpe Bank Road. Thorpe Bank Road also closely follows the route of the River Don. The proposed Grid Connection Corridor is approximately 6.3 km in length, of which approximately 1.47 km is located within the MSA and a further 1.1 km within the MSA buffer. The cables will be installed and buried using conventional open cut trench techniques.

- 6.14.5 Whilst the Solar PV Panels and BESS Containers will be temporary for a period of up to 40 years, as discussed in Section 4.5 of this Planning Statement, the decommissioning of the On-Site Substation and cabling within the Grid Connection Corridor would be agreed with National Grid Electricity Transmission (NGET) and/or the asset owners prior to the commencement of decommissioning. It is common practice for such infrastructure to be retained and used for another purpose after the development they were originally installed to support is decommissioned and therefore they may not be decommissioned and could be retained in situ. Measures to remove or reduce impacts during decommissioning are included within the **Framework DEMP [EN010152/APP/7.9]** and is secured by requirement 18 of Schedule 2 in the **Draft DCO [EN010152/APP/3.1]**.
- 6.14.6 **ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1]** has considered the impact of the Scheme on the MSA. **ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN/010152/APP/6.3]** presents an assessment of the Scheme (specifically, the Grid Connection Corridor) in the context of the five criteria of Policy 61 (Part B) of the Doncaster Local Plan, noting that accordance with only one of the criteria needs to be demonstrated by the Applicant to achieve policy support for non-mineral development within the MSA and 250 m buffer zone. The report explains that the Scheme accords with criteria 2, 4 and 5 of Policy 61 (Part B) of the Doncaster Local Plan (Ref. 16), as summarised below.
- 6.14.7 The maximum length of the Grid Connection Corridor which overlies the MSA is around 3-4 km in length (dependent on routeing within the corridor). Therefore, the land take associated with the Grid Connection Cables is relatively small as it will be a narrow linear feature. Should an operator in the future judge that a specific area along the route of the Grid Connection Cables is commercially viable for mineral extraction, the cables could be diverted to allow mineral extraction to be undertaken. Therefore, it is considered that non-mineral development can take place without preventing the economically viable mineral resource (if present) being extracted in the future, which accords with criterion 2 of Policy 61 Part B of the Doncaster Local Plan (Ref. 16).
- 6.14.8 In accordance with criterion 4 of Policy 61 Part B, it is considered that the need for the Scheme substantially outweighs the minor impact it may have on mineral reserves within the MSA. At the local level, City of Doncaster Council recognises the urgent need to address the causes of climate change and declared a climate and biodiversity emergency in 2019, with the aim to become carbon neutral by 2040 (Ref. 45). At the national level, NPS EN-1 (Ref. 2) sets out that the provision of nationally significant low carbon infrastructure such as solar farms is a critical national priority (CNP).
- 6.14.9 The installation of the Grid Connection Cables will only require a trench excavation of 0.7 m in width and the cables themselves would be installed approximately 1.2 m below ground level. Therefore, the impact of the proposed cables on the MSA would be small and minor in nature, as per criterion 5 of Policy 61 Part B. There is also the potential for the Grid Connection Cables to be removed entirely following decommissioning, or relocated entirely should a future proposal to extract mineral in this area come forward.

6.14.10 Taking into account the conclusions of the Minerals Safeguarding Report (**ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN/010152/APP/6.3]**), it is considered that the Scheme accords with paragraphs 5.11.19 and 5.11.28 of NPS EN-1 (Ref. 2) and satisfies the relevant criteria in Policy 61 Part B of the Doncaster Local Plan (Ref. 16).

6.15 Other construction, operation and decommissioning impacts

- 6.15.1 Other impacts of the Scheme during construction, operation and decommissioning have been identified and are assessed in **ES Volume I Chapter 16: Other Environmental Topics [EN010152/APP/6.1]**. The impacts below have associated relevant national and local planning policies:
- Air quality
 - Glint and Glare
 - Ground conditions
 - Major accidents and disasters
 - Materials and waste
 - Electric and electromagnetic fields.

Air Quality

Planning Policy Context

- 6.15.2 NPS EN-1 (Ref. 2), paragraph 5.2.8, requires applicants to undertake an assessment of the impacts of the proposed project as part of the ES, where a project is likely to have adverse effects on air quality.
- 6.15.3 Paragraph 5.2.13 of NPS EN-1 (Ref. 2) states that the Secretary of State should consider whether mitigation measures are needed, noting that a *“construction management plan may help codify mitigation at this stage”*. It also sets out that the Secretary of State should have regard to the Air Quality Strategy for England and should consider relevant advice within Local Air Quality Management and PM 2.5 targets guidance.
- 6.15.4 Paragraph 5.2.16 of NPS EN-1 (Ref. 2) explains that air quality considerations should be given substantial weight in the decision making process, especially *“where a project would lead to a deterioration in air quality”*. It also states that *“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 statutory limits, objectives or targets”*.
- 6.15.5 NPS EN-1 (Ref. 2) paragraph 5.7.1 requires mitigation of impacts from a range of emissions, including dust, to be included within the Development Consent Order, as they have the potential to have a detrimental effect on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act (1990) (Ref. 54).
- 6.15.6 Paragraph 5.7.4 of NPS EN-1 (Ref. 54) acknowledges that some impact from energy NSIPs on amenity for local communities is likely to be unavoidable, therefore *“the aim should be to keep impacts to a minimum, and at a level that is acceptable”*.

- 6.15.7 Paragraph 5.7.5 (Ref. 2) requires an assessment to be undertaken on the potential for dust impacts and the effect on amenity within the ES and paragraph 5.7.6 sets out the criteria for such an assessment.
- 6.15.8 In its decision making, paragraph 5.7.12 of NPS EN-1 (Ref. 2), states that the Secretary of State should satisfy itself that an assessment of dust has been carried out and all reasonable steps have or will be taken to minimise any detrimental impacts.
- 6.15.9 With regard to local policy, Policy 54 of the Doncaster Local Plan (Ref. 16) states that *“development proposals that are likely to cause pollution will only be permitted where it can be demonstrated that pollution can be avoided, or where mitigation measures (...) will minimise significantly harmful impacts to acceptable levels that protect health, environmental quality and amenity”*. The policy goes on to say that the impact on national air quality will be given *“particular consideration”*.

Assessment conclusions and appraisal

- 6.15.10 **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]** provides an assessment of the likely effects on air quality as a result of the Scheme. The assessment relates to dust generation, as well as additional road traffic and plant emissions during the construction and decommissioning phases. The impacts of the Scheme during the operation and maintenance phase were scoped out of the assessment, as no significant adverse effects would likely occur, due to the small magnitude of road traffic during this phase and the limited use of the emergency generator at the On-Site Substation.
- 6.15.11 The potential impact of the Scheme during construction and decommissioning on local air quality has been determined at sensitive receptors (human and ecological) identified in the vicinity of the Order limits. The location of these receptors is shown on **ES Volume II Figure 14-1: Dust Risk Assessment Zones [EN010152/APP/6.2]**.
- 6.15.12 There is no Air Quality Management Area (AQMA) within the vicinity of the Order limits and therefore, no AQMA is likely to be affected by the Scheme.
- 6.15.13 Industry good practice measures to control impacts on air quality, in line with guidelines from the Institute of Air Quality Management (IAQM), will be implemented as part of the Scheme and are described in Section 14.1 of **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]**. The implementation of these measures are outlined in the **Framework Construction Environmental Plan [EN010152/APP/7.7]** and **Framework Decommissioning Environmental Management Plan [EN010152/APP/7.9]**, and will be secured through requirement 11 and 18 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.
- 6.15.14 Taking into account the above mitigation measures, no significant adverse effects were identified as a result of the construction and decommissioning of the Scheme, on human health or sensitive ecosystems, from emissions of air pollutants. Impacts relating to dust soiling from construction dust were also assessed as not significant and this would be the same for decommissioning. Overall, there would be no residual effects on air quality associated with the Scheme.

6.15.15 In summary, impacts on air quality from the Scheme can be appropriately controlled to acceptable standards. The Scheme is therefore in accordance with NPS EN-1 (Ref. 2) and policy 54 of the Doncaster Local Plan (Ref. 16).

Glint and Glare

Planning Policy Context

6.15.16 Section 5.5 of NPS EN-1 (Ref. 2) requires consideration of effects from new energy infrastructure on civil or military aviation and defence interests, including all aerodromes and communications, navigation and surveillance (CNS) infrastructure.

6.15.17 Paragraph 2.10.103 of NPS EN-3 (Ref. 3) states that “*Applicants should map receptors qualitatively to identify potential glint and glare issues and determine if a glint and glare assessment is necessary as part of the application*”. Further, paragraph 2.10.104 of NPS EN-3 (Ref. 3) highlights that where a quantitative glint and glare assessment is necessary, applicants are expected to “*provide an assessment of potential impact and impairment based on the angle and duration of incidence and the intensity of the reflection*”. Paragraph 2.10.105 of NPS EN-3 (Ref. 3) notes that the extent of the reflectivity analysis required to assess potential impacts will depend on the specific project site and design.

6.15.18 NPS EN-3 (Ref. 3) at paragraph 2.10.158 states that the potential impact of glint and glare on nearby homes, motorists, PRow and aviation infrastructure should be assessed during the decision-making process.

6.15.19 Paragraph 2.10.159 of NPS EN-3 (Ref. 3) adds that there is no evidence that glint and glare results in significant impairment on aircraft safety and therefore unless a significant impairment can be demonstrated, the effect of glint and glare on aviation is unlikely to have significant weight in the Secretary of State’s decision.

Assessment conclusions and appraisal

6.15.20 **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]** and supporting **ES Volume III Appendix 14-2: Glint and Glare Assessment [EN/010152/APP/6.3]** provide an assessment of glint and glare effects of the Scheme. In accordance with NPS EN-3 (Ref. 3), the assessment considers effects upon surrounding road users, railway operations, dwellings, PRow, bridleways and aviation activity, based on the visibility of PV panels from receptors, their angles using geometric calculations and amount of sunlight.

6.15.21 The assessment predicts that the Scheme will result in minor (not significant) impacts at one runway approach path, whilst there will be no impacts on remaining aviation receptors.

6.15.22 No impacts are predicted either on ground-based (residential, road, rail and bridleway) receptors, with the exception of three residential receptors (74, 79 and 88) where impacts are predicted to be low. A conservative approach to mitigation was adopted in order to further reduce the low level of impact at these three residential receptors, including the planting/infilling of native hedgerows to a height of at least 3.5 m along the boundaries of the Solar PV Site in proximity to the receptors, as described in the **Framework LEMP**

[EN010152/APP/7.14] and related masterplan, which will be secured through requirement 6 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

6.15.23 In summary, impacts of glint and glare from the Scheme are acceptable and not significant. The Scheme is therefore in accordance with NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3).

Ground Conditions

Planning Policy Context

6.15.24 Paragraph 4.12.15 of NPS EN-1 (Ref. 2) states that, before consenting any potentially polluting developments, the decision maker should be satisfied that the potential impacts with respect to existing ground contamination can be adequately regulated under the pollution control framework and that the cumulative effects of pollution would not make development unacceptable.

6.15.25 Paragraph 5.11.17 of NPS EN-1 (Ref. 2) states that *“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”*.

6.15.26 Paragraph 2.10.34 of NPS EN-3 (Ref. 3) encourages applicants to *“develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination”*.

6.15.27 Policy 55 of the Doncaster Local Plan (Ref. 16) requires proposals to mitigate contamination or land stability by *“demonstrating there is no significant harm, or risk of significant harm, to human health, or land, natural environment, pollution of soil or any watercourse or ground water”*.

Assessment conclusions and appraisal

6.15.28 **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]** assesses the impacts of the Scheme on ground conditions.

6.15.29 Phase 1 Preliminary Risk Assessments (PRA) have been undertaken for the Solar PV Site and for the Grid Connection Corridor and are provided in **ES Volume III Appendix 14-3: Phase 1 Preliminary Risk Assessment – Solar PV Site [EN010152/APP/6.3]** and **ES Volume III Appendix 14-4: Phase 1 Preliminary Risk Assessment – Grid Connection Corridor [EN010152/APP/6.3]**. The PRA assesses the land condition and evaluates potential land quality risks and development constraints associated with the Scheme prior to construction.

6.15.30 An intrusive site investigation is proposed by the Applicant to confirm the findings of the PRA, as well as a Quantitative Risk Assessment in areas of potential contamination. The **Framework CEMP [EN/010152/APP/7.7]** includes management measures relating to ground conditions, including ground investigation works to be undertaken prior to commencing construction, which will be secured in the detailed CEMP by requirement 11 in Schedule 2 of the **draft DCO [EN/010152/APP/3.1]**, thereby ensuring that any risks associated with ground conditions are mitigated as appropriate. The detailed CEMP will be prepared by the principal contractor and will need to be substantially in accordance with the Framework CEMP.

- 6.15.31 A Pre-Desk Study Assessment for Unexploded Ordnance (UXO) has also been prepared (**ES Volume III, Appendix 14-5: Pre-Desk Study Assessment for UXO [EN010152/APP/6.3]**) and confirms that a detailed desk survey is not essential.
- 6.15.32 Following implementation of the recommendations of the Quantitative Risk Assessment (to be completed post-consent) into the detailed CEMP, along with the environmental design and management measures for the construction, operation and decommissioning phases, the risk to human health, controlled waters and other sensitive receptors is considered acceptable. Therefore, the Scheme is not considered to pose an unacceptable risk to human health or the environment during construction, operation or decommissioning. It is not expected that the Scheme would result in any significant effects associated with ground conditions.
- 6.15.33 In summary, impacts of the Scheme on ground conditions can be appropriately controlled to acceptable standards and further investigation will be undertaken if required to understand potential areas of contamination. The Scheme is therefore in accordance with NPS EN-1 (Ref. 2) and Policy 55 of the Doncaster Local Plan (Ref. 16) regarding potential impacts on ground conditions.

Major Accidents and Disasters

Planning Policy Context

- 6.15.34 The EIA Regulations (Ref. 5) require an assessment of the “*potentially significant effects of a development on the environment as a result of its vulnerability to, or introduction of, risks of major accidents and/or disasters*”.
- 6.15.35 Paragraph 4.13.5 of NPS EN-1 (Ref. 2) states that applicants should consult with the Health and Safety Executive (HSE) on matters relating to safety.
- 6.15.36 Paragraph 4.13.8 of NPS EN-1 (Ref. 2) requires the decision maker to be satisfied that a safety assessment has been prepared, where required, and that the Competent Authority has raised no safety objections associated with the development.

Assessment conclusions and appraisal

- 6.15.37 Section 14.2 of **ES Volume I Chapter 16: Other Environmental Topics [EN010152/APP/6.1]** provides a description of the potential effects of the Scheme on the environment deriving from the vulnerability of the Scheme to risks of major accidents and/or disasters. The assessment has considered a number of potential major accidents and disasters (including floods, fire, road accidents, rail accidents and aircraft disasters) and identified appropriate mitigation measures.
- 6.15.38 The Scheme is not located within a safeguarding zone of an explosives site licensed under the Explosives Regulations 2014 or the Dangerous Goods in Harbour Areas Regulations 2016. The Scheme is also not located with the HSE’s land use planning consultation zones for major accident hazard pipelines and hazardous substances consented sites.
- 6.15.39 Minimising the risk of major accidents during construction, operation and decommissioning will be addressed through appropriate measures set out in the **Framework CEMP [EN010152/APP/7.7], Framework OEMP**

[EN010152/APP/7.8] and **Framework DEMP [EN010152/APP/7.9]**. The detailed preparation and implementation of these plans are secured via requirements 11, 12 and 18 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

6.15.40 During construction, operation and decommissioning, there is a potential fire risk from the batteries that form part of the BESS. The Scheme's design includes mitigation and protection measures which are detailed in the **Framework Battery Safety Management Plan (FBSMP) [EN010152/APP/7.16]**. The FBSMP has been prepared in consultation with South Yorkshire Fire and Rescue Service and outlines the key safety provisions for the BESS (e.g. location of battery containers to more than 500 m from any residential receptors and installation of fire detection and suppression features). Prior to commencement of construction of the BESS, the Applicant will be required to prepare a detailed Battery Safety Management Plan (BSMP) which is secured by requirement 5 in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**.

6.15.41 The Grid Connection Corridor crosses the Network Rail freight line to the north of the Existing National Grid Thorpe Marsh Substation. At this location, On-Site Cables will be routed beneath the railway using HDD (see HDD.10 in **ES Volume II Figure 2-4: Location of Temporary Construction Compounds and Indicative HDD Areas [EN010152/APP/6.2]**). The detailed design for the HDD will be informed by geotechnical site investigation and assessment (to be undertaken post-consent). Protective Provisions have been included within the **draft DCO [EN010152/APP/3.1]** for the protection of railway interests (Network Rail). This includes that the methodology for the HDD works will be agreed with Network Rail. It is therefore considered that there would be no impact to the integrity of rail infrastructure or the safety of rail users as a result of the Scheme.

6.15.42 Taking into account the good industry practice and additional mitigation measures set out in **ES Volume I Chapter 16: Other Environmental Topics [EN010152/APP/6.1]**, the risk of major accidents and disasters is low for the Scheme and significant adverse effects on the environment or people, should such an event occur, are therefore not anticipated.

6.15.43 In conclusion, the Scheme has taken appropriate consideration of the potential for major accidents and disasters and how to reduce the potential of them occurring to ensure public safety, through protective and mitigation design measures. The Scheme is therefore considered to accord with NPS EN-1 (Ref. 2).

Materials and Waste

Planning Policy Context

6.15.44 Section 5.15 of NPS EN-1 (Ref. 2) sets out considerations with regard to resource and waste management. Paragraph 5.15.2 states that *"Sustainable waste management is implemented through the waste hierarchy, which sets out the priorities that must be applied when managing waste"*.

6.15.45 NPS EN-1 (Ref. 2) paragraph 5.15.14 states that consideration should be given to the extent to which the applicant has proposed an effective system for managing both hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the Scheme.

- 6.15.46 Paragraph 5.15.15 of EN-1 (Ref. 2) states that the Secretary of State should be satisfied that any such waste can be 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, and that adequate steps have been taken to minimise the volume of waste arisings.
- 6.15.47 Policy WCS7 of the Barnsley, Doncaster and Rotherham Joint Waste Plan (Ref. 17) requires all development proposals to submit a waste management plan as part of planning applications, which should include *“information on the amount and type of waste that will be generated from the site”* and *“measures to reduce, reuse and recycle waste within the development, including the provision of on-site separation and treatment facilities (using fixed or mobile plants where appropriate)”*.

Assessment conclusions and appraisal

- 6.15.48 **ES Volume I Chapter 14: Other Environmental Topics** [EN/010152/APP/6.1] presents the findings of an assessment of the likely significant effects from materials and waste as a result of the Scheme, during construction, operation and decommissioning.
- 6.15.49 The assessment concludes that there will be no significant adverse effects relating to materials and waste during construction, operation and decommissioning. In addition, no adverse effects are expected in relation to the ability of existing waste management facilities to deal with waste from other Solar PV schemes in the City of Doncaster area.
- 6.15.50 During operation and maintenance, it is unlikely that construction materials would be required in large quantities. Waste generation is expected to be negligible, since solar PV panels and other components do not generate any waste as part of the energy production process. Waste arisings from day-to-day Scheme operation and maintenance would include welfare facility waste and general waste (e.g. paper, cardboard, wood). In addition, ad hoc replacement of any components that fail or reach the end of their lifespan would also occur.
- 6.15.51 As detailed in the **Framework Site Waste Management Plan (SWMP)** [EM010152/APP/7.18], management of all waste would be in accordance with relevant regulations and any waste generated would be transported by licensed waste carriers to waste management sites which hold the necessary regulatory authorisation and/or permits for those wastes consigned to them.
- 6.15.52 Waste management and mitigation measures contained within the submitted **Framework SWMP** [EN010152/APP/7.18], **Framework CEMP** [EN010152/APP/7.7], **Framework OEMP** [EN010152/APP/7.8], and **Framework DEMP** [EN010152/APP/7.9] will be secured through detailed plans via requirements in the **draft DCO** [EN010152/APP/3.1].
- 6.15.53 In summary, impacts of the Scheme in relation to materials and waste will be appropriately controlled through management plans. The Scheme is therefore in accordance with NPS EN-1 (Ref. 2) and relevant local planning policies regarding materials and waste.

Electric and Electro-magnetic Fields (EMF)

Planning Policy Context

- 6.15.54 Paragraph 2.11.14 of NPS EN-5 (Ref. 4) states that *“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 01/03 (**Error! Reference source not found.**), or any successor, when considering recommendations for DCO applications”*.
- 6.15.55 Paragraph 2.11.13 of NPS EN-5 (Ref. 4) recognises that the undergrounding of a line would reduce the level of EMFs experienced, but magnetic field levels may still be high immediately above the cable.

Assessment conclusions and appraisal

- 6.15.56 **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]** sets out the potential for Electric and Electro-Magnetic Fields (EMF) effects to the public, from the Scheme’s electrical assets during the operation and maintenance phase.
- 6.15.57 The levels of EMF experienced by potential aviation receptors is considered to be negligible and therefore aviation receptors have not been included in the assessment.
- 6.15.58 The potential EMF effects from the above ground cables between the potential cable sealing end compound and the existing overhead line tower within the Solar PV Site (Grid Connection Line Drop) is assessed under the Cumulative Effects section of **ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]**. This confirms that there are no residential properties within the Order limits (with the nearest properties more than 100 m away from the line drop), which puts the residential properties in the lowest threshold of microteslas / electric fields. Therefore, no significant adverse effects to residential receptors are predicted to occur. Thus, the proposed overhead lines would meet the relevant exposure limits.
- 6.15.59 Public access will be limited within 30 m of the Grid Connection Line Drop, should this option be selected for the final connection design. Some PRow do cross over the Grid Connection Corridor, and may also pass over the On-Site Cables and Grid Connection Line Drop where they are routed within the Order Limits. The presence of the public either directly above or adjacent to the cables would be transient, with the individuals using the PRow exposed to EMF from the cables for only very short periods of time. The level of exposure to users of PRow would be similar to that associated with general household appliances. Therefore, no significant effects to users of PRow are predicted to occur.
- 6.15.60 The potential for direct or indirect effects of EMF on aquatic and terrestrial organisms as a result of the Scheme has also been assessed, leading to the conclusion that there would be no significant adverse effects to the migratory fish species using the River Went as a result of the generation of EMF by the Grid Connection Cables.
- 6.15.61 In summary, no significant adverse effects are anticipated on residential receptors, users of PRow or fish in relation to EMF, as a result of the

Scheme. Therefore, the Scheme is in accordance with NPS EN-5 (Ref. 4), with respect to potential impacts of electric and EMF.

6.16 Cumulative Impacts

Planning Policy Context

- 6.16.1 Paragraph 4.1.5 of NPS EN-1 (Ref. 2) confirms that in weighing up the impacts and benefits of a proposed development, the Secretary of State will also need to take into account:

“its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term wider benefits

its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy”.

- 6.16.2 Paragraph 4.2.12 of NPS-EN-1 (Ref. 2) relates to the Applicant’s consideration of residual impacts stating that *“the cumulative impacts of multiple developments with residual impacts should also be considered.”*
- 6.16.3 Paragraph 4.3.3 of NPS EN-1 (Ref. 2) requires applicants to provide an assessment of the likely significant effects of a proposed development, in accordance with the requirements of the EIA Regulations, including any cumulative effects.
- 6.16.4 Paragraph 4.3.19 of NPS EN-1 (Ref. 2) with respect to decision making states that:
- “The Secretary of State should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy, or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place”.*
- 6.16.5 Section 4.4 of NPS EN-1 (Ref. 2) sets out national policy on the consideration of health with respect to energy proposals stating at 4.4.5 that:
- “The impacts of more than one development may affect people simultaneously, so the applicants should consider the cumulative impacts on health in the ES where appropriate”.*
- 6.16.6 Section 5 of NPS EN-1 (Ref. 2) sets out the generic impacts of energy NSIPs upon the environment. This includes policies for the consideration of cumulative impacts with respect to flood risk (paragraphs 5.8.15 and 5.8.32), the historic environment (paragraphs 5.9.9), landscape and visual effects (paragraph 5.10.6), socio-economic impacts (paragraph 5.13.4), traffic and transport effects (paragraph 5.14.21), and impacts on water quality and resources (paragraph 5.16.7).
- 6.16.7 NPS EN-3 (Ref. 3) recognises that, in the case of solar projects, applicants will choose sites based on nearby available grid export capacity and, given this (at paragraph 2.10.26):
- “applicants should consider the cumulative impacts of situating a solar farm in proximity to other energy generating stations and infrastructure.”*

6.16.8 Paragraph 2.10.94 of NPS EN-3 (Ref. 3) sets out specific policy with respect to the consideration of cumulative landscape and visual impacts, confirming that:

“The approach to assessing cumulative landscape and visual impact of large-scale solar farms is likely to be the same as assessing other onshore energy infrastructure. Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure.”

6.16.9 NPS EN-3 (Ref. 3) goes on to state at paragraph 2.10.95 that whilst solar development can cover a large surface area, its zone of visual influence can be appropriately minimised by *“effective screening and appropriate land topography.”*

6.16.10 Paragraph 2.10.126 of NPS EN-3 (Ref. 3) sets out likely impacts relating to traffic and transport stating that *“where a cumulative impact is likely because multiple energy infrastructure developments are proposing to use a common port and/or access route and pass through the same towns and villages”*, the ES should include a cumulative transport assessment.

6.16.11 Measures to manage the impacts on local road networks or residential amenity associated with construction traffic and related noise and vibration from multiple solar projects is referenced in paragraph 2.10.141, stating that *“it may be appropriate for applicants for various projects to work together”* to minimise impacts upon the highway networks and residents.

6.16.12 NPS EN-5 (Ref. 4) reiterates the policy positions of NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3), confirming the need to consider cumulative impacts within the ES and this being an overall consideration as part of the planning balance exercise.

6.16.13 Policy 58 (Low Carbon and Renewable Energy) of the Doncaster Local Plan (Ref. 16) requires low-carbon and renewable energy development to be acceptable, in terms of cumulative impacts, on the built and natural environment.

Assessment Conclusions

6.16.14 **ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1]** sets out the Applicant’s assessment of two types of effects. It looks at effect interactions, which arise as a result of the combined effect of individual impacts from the Scheme; and cumulative effects, which arise where there is the potential for two or more developments that are reasonably foreseeable and/ or consented but not yet forming part of the baseline environment and within close enough proximity to the Scheme to lead to significant cumulative effects on the same receptor.

6.16.15 Identification of effect interactions draws on the assessment of impacts provided in **ES Volume I Chapters 6 to 14 [EN010152/APP/6.1]**. Table 15-2 and Table 15-3 in **ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1]** summarise the potential effect interactions. No significant effect interactions are anticipated as a result of the construction, operation and maintenance or decommissioning of the Scheme.

- 6.16.16 An assessment of the cumulative effects of the Scheme along with other developments is presented in each technical chapter (**ES Volume I Chapters 6 to 14 [EN010152/APP/6.1]**). Within the exception of **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, the cumulative effects assessment presented in the technical chapters have not identified any new likely significant effects. In addition, no significant effects of the Scheme in isolation are made greater (e.g. Moderate to Major) when considering these other developments alongside the Scheme.
- 6.16.17 An exception is the impact on the setting of two Grade II listed buildings at Riddings Farm when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, no further mitigation is possible to reduce this impact to a non-significant level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant.

Appraisal

- 6.16.18 In accordance with national and local planning policy, an assessment of the cumulative impacts of the Scheme has been undertaken to assess whether there are any new significant effects or significant effects of the Scheme in isolation are made greater when considering the Scheme alongside other developments.
- 6.16.19 Chapters of the ES have presented effects of the Scheme which have the potential to impact on both physical and mental health, but none have identified likely significant cumulative adverse effects during the various phases of the Scheme with respect to the impacts on health, as required by paragraph 4.4.5 of NPS EN-1 (Ref. 2).
- 6.16.20 Only one significant adverse cumulative effect has been identified which relates to the setting of two Grade II listed buildings at Riddings Farm when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (under planning permission 22/01536/FUL and listed building consent 22/01537/LBC).
- 6.16.21 However, as is noted in the Heritage Statement (see Appendix C of this Planning Statement), the greater impact arises from the loss of the demolition of 'Lily Hall' farmhouse and the resultant loss of association, group value, and context for the remaining listed, contemporary farm buildings. The impact of the Scheme makes a lesser, non-significant, contribution to the identified cumulative effect and no mitigation to reduce the impact is possible. Therefore, the harm on these two heritage assets arising from this cumulative impact is considered to be less than substantial.
- 6.16.22 In accordance with NPS EN-1 (Ref. 2) paragraphs 4.1.5, 4.3.19, 5.9.32 and 5.9.33, and taking into account the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, described in Section 5 of this Planning Statement, including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to these two designated heritage assets.

6.16.23 As a result, this significant adverse cumulative effect is also considered acceptable in accordance with Policy 58 of the Doncaster Local Plan Policy (Ref. 16).

7. Decision-making and Planning Balance

7.1 Introduction

7.1.1 NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and NPS EN-5 (Ref. 4) provide the policy framework for the Secretary of State's decision on the DCO Application. Pursuant to section 104(3) of the PA 2008 (Ref. 1) the Secretary of State must have regard to these NPSs and must decide the application in accordance with them, save for in a limited number of circumstances under section 104(4) to (8).

7.2 Section 104(2) of the PA 2008

7.2.1 Section 104(2) of the PA 2008 (Ref. 1) states that in deciding an application for development consent the Secretary of State must have regard to:

- a. Any relevant national policy statement;
- b. Local impact reports;
- c. Prescribed matters; and
- d. Any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision.

7.2.2 The relevant NPSs in respect of the Scheme are NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and NPS EN-5 (Ref. 4). Section 6 and Appendix A of this Planning Statement demonstrate that the Scheme is in accordance with these NPSs.

7.2.3 A Local Impact Report is expected to be prepared by the host authority (City of Doncaster Council) for the examination of the DCO Application. The Scheme is in accordance with local policy to the extent that it is important and relevant, as demonstrated in Appendix B of this Planning Statement.

7.2.4 In terms of prescribed matters, it has been demonstrated that a decision to grant a DCO for the Scheme would have regard to the matters prescribed by Regulation 3 and 7 of the Infrastructure Planning (Decisions) Regulations 2010 (as amended) (Ref. 12). The Scheme has regard to preserving heritage assets and their setting as set out in Section 6.10 and Appendix C of this Planning Statement and **ES Volume I Chapter 7 Cultural Heritage of the ES [EN010152/APP/6.1]**. Biodiversity conservation and enhancement is also addressed in Section 6.8 of this Planning Statement and **ES Volume I Chapter 8 Ecology [EN010152/APP/6.1]**.

7.2.5 This Planning Statement provides evidence of the Scheme's compliance with the relevant prescribed matters and relevant planning policy and other matters the Applicant considers are likely to be important and relevant, to inform the Secretary of State's decision as to whether to grant a DCO for the Scheme.

7.3 Section 104(3) to 104(8) of the PA 2008

7.3.1 Section 104(3) of the PA 2008 Act (Ref. 1) requires that applications for development consent must be decided by the Secretary of State in accordance with any relevant national policy statement except to the extent that one or more of subsections 104(4) to 104(8) apply.

- 7.3.2 The Scheme is compliant with the policies in the relevant NPS. It follows that the presumption in favour of granting consent in paragraph 4.1.3 of NPS EN-1 (Ref. 2) applies in this case. There are no specific or relevant policies set out within NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) or NPS EN-5 (Ref. 4) which indicate that consent should be refused.
- 7.3.3 None of the limited exceptions in subsections 104(4) to 104(8) of PA 2008 are engaged, for the reasons summarised below.
- 7.3.4 Section 104(4) applies if deciding an application in accordance with any relevant national policy would lead to the UK being in breach of any of its international obligations. There is no evidence to suggest that the granting of the DCO for the Scheme would lead to the UK being in breach of any of its international obligations.
- 7.3.5 Section 104(5) applies if deciding an application in accordance with any relevant national policy would lead to the Secretary of State being in breach of any duty imposed on the Secretary of State by or under any enactment. There is no evidence to suggest that the granting of the DCO for the Scheme would lead the Secretary of State to be in breach of any such duty.
- 7.3.6 Section 104(6) applies if deciding an application in accordance with any relevant national policy would be unlawful by virtue of any enactment. There is no evidence to suggest that the granting of the DCO for the Scheme would be unlawful by virtue of any enactment.
- 7.3.7 Section 104(7) applies if the adverse impact of a proposed development would outweigh its benefits. Section 6 of this Planning Statement (and supporting Appendices A and B) set out how the Scheme is in accordance with NPS EN-1 (Ref. 2), NPS EN-3 (Ref. 3) and NPS EN-5 (Ref. 4) and relevant local policy. The overall planning balance of the Scheme is considered below.
- 7.3.8 Section 104(8) applies if any condition prescribed for deciding an application otherwise in accordance with an NPS is met. There is no evidence to suggest that any condition is met in relation to the Scheme.

7.4 Planning Balance

- 7.4.1 In accordance with NPS EN-1 (Ref. 2), whilst the presumption applies in favour of granting development consent, namely that the urgent need for large scale solar infrastructure, as CNP infrastructure, will generally outweigh any other residual impacts, it is still necessary to apply the planning balancing exercise to determine whether any specific policy tests indicate that consent should be refused and with the need to weigh adverse impacts against benefits overall.
- 7.4.2 Paragraph 4.1.5 of NPS EN-1 (Ref. 2) sets out how the Secretary of State, when making a decision, will weigh “*adverse impacts against its benefits*”. The glossary associated with NPS EN-1 confirms that in making a decision, the Secretary of State will apply the following hierarchy of weight:
- a. Limited.
 - b. Moderate.
 - c. Great.
 - d. Significant.

e. Substantial.

- 7.4.3 The following paragraphs have regard to the outcomes of the planning appraisal in Section 6 of this Planning Statement with respect to the potential environmental, social and economic impacts of the Scheme and apply the planning balancing exercise.

Positive Impacts

Climate Change

- 7.4.4 The significant carbon savings achieved throughout the lifetime of the Scheme demonstrate the role solar energy generation has to play in the transition to, and longer-term maintenance of, a low carbon economy. The Scheme directly supports the UK policy of decarbonising electricity generation therefore according with NPS EN-1 (Ref. 2) and recent government energy and climate change policy and legislation referred to in Section 2 of this Planning Statement. This should be afforded **substantial positive weight** in the planning balance.

Biodiversity

- 7.4.5 Through the implementation of the measures set out in the **Framework LEMP [EN010152/APP/7.14]** to be secured by requirement 6 in Schedule 2 to the **draft DCO [EN010152/APP/3.1]**, the Scheme will deliver a range of ecological enhancements. The Scheme is predicted to exceed the BNG target of 10% and this is predicted for each habitat type. Beneficial impacts on ecological features and habitats are therefore likely. In this regard, this should be afforded **moderate positive weight** in the planning balance.

Employment Generation

- 7.4.6 The Scheme will generate significant employment during construction and deliver economic benefits. It is estimated that the Scheme will support on average 225 total net jobs per annum during the construction phase. Of these, 102 jobs per annum would be expected to be taken up by residents within a 60-minute drive time. Similar employment benefits are also anticipated for the decommissioning phase. The strategy to secure employment and benefit opportunities are outlined in the **FSSCEP [EN/010152/APP/7.15]**, which is to be secured by requirement 16 of Schedule 2 to the **draft DCO [EN010152/APP/3.1]**. This should be afforded **moderate positive weight** in the planning balance.

Agricultural land

- 7.4.7 **Moderate positive weight** in the planning balance should be afforded to the recovery of soil function for agricultural production given that decommissioning of the Scheme is secured through requirement 18 of Schedule 2 of the **draft DCO [EN010152/APP/3.1]** and the Solar PV Site will be reinstated with the exception of the On-Site Substation.

Neutral Impacts

Water Quality and Resources, Flood Risk and Drainage

- 7.4.8 There will be no significant residual adverse effects on water quality and resources and flood risk and drainage therefore these matters should be afforded **neutral weight** in the planning balance.

Noise and Vibration

- 7.4.9 There will be no significant residual adverse effects as a result of noise and vibration (with the exception of nighttime HDD works if required during construction) with this matter being afforded **neutral weight** in the planning balance.

Transport and Access (operation and maintenance)

- 7.4.10 There will be no significant residual adverse operational effects relating to transport and access with this matter being afforded **neutral weight** in the planning balance.

Socio Economics and Human Health

- 7.4.11 There will be no significant residual adverse effects relating to socio-economics and human health with this matter being afforded **neutral weight** in the planning balance. The socio economic effect of employment generation is reported separately under the Positive Impacts above.

Other construction, operation and decommissioning impacts

- 7.4.12 There will be no significant residual adverse effects as a result of other construction, operation and decommissioning impacts with this matter being afforded **neutral weight** in the planning balance.

Negative Impacts

Landscape and Visual

- 7.4.13 All Solar PV Panels have been sited within the existing field pattern, protecting existing vegetation and maximising the natural screening provided by field boundary vegetation. Larger infrastructure, such as the On-Site Substation and BESS Area have been located away from residential receptors, in order to minimise potential visual effects. The Solar PV Site mostly avoids land abutting settlement boundaries, such as fields immediately adjacent to Fenwick. Where this has not been possible, offsets (a minimum of 50 m) and new planting has been incorporated to retain a sense of openness whilst screening the Solar PV Panels. Buffers are also proposed for PRoW which are within the Solar PV Site). The design approach for the Scheme has also seeks to retain existing vegetation patterns and to plant new green infrastructure to ensuring 'gapping up' of existing boundaries.
- 7.4.14 Notwithstanding the design mitigation and proposed landscaping outlined in the **Framework LEMP [EN010152/APP/7.14]**, the introduction of the Scheme in the landscape would have effects on local landscape character. In Year 1, Moderate Adverse (significant) effects are anticipated on LCA F2: Owsten to Sykehouse Settled (LCA F2), LCA Area 01: Fenwick Village (LLCA 01), LCA 02: Fenwick Farmlands (LLCA 02); LCA Area 03: River Went Farmlands (South) (LLCA 03); and LCA Area 05: River Went Corridor (LLCA 05).
- 7.4.15 By Year 15 however, these effects would reduce and would not be significant for all of the local landscape character areas, except for LLCA 02 – Fenwick Farmlands. because two thirds of LLCA 02 would still be occupied by the Solar PV Site, continuing to introduce an evident change in land use and character.

- 7.4.16 In terms of operational effects on visual receptors, significant adverse effects are reported at Year 1 on users of PRoW and local residential properties (although the majority of residents in Fenwick and Moss would not experience significant adverse effect). By Year 15, planting will be sufficiently mature to mitigate the significant effects, with the exception of users of local PRoW and the residential property of Jett Hall Farm where visibility of the Solar PV Site would remain at an oblique angle from upper storey windows during winter.
- 7.4.17 NPS EN-1 at paragraph 5.10.5 (Ref. 2) does acknowledge that “*virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape.*” Paragraph 5.10.12 of NPS EN-1 (Ref. 2) also confirms that “*locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.*” In addition, the significant operational effects are localised and would be reversed following 40 years of operation through decommissioning.
- 7.4.18 The Scheme has sought to minimise impacts and provide mitigation where practicable through careful siting and design. The residual significant landscape and visual effects are localised affecting a small number of residential receptors and users of PRoW. Paragraph 4.1.7 of NPS EN-1 (Ref. 2) states that, for projects which qualify as CNP infrastructure (such as the Scheme), the need case will generally outweigh the residual effects in “*all but the most exceptional cases*”. None of the exceptional circumstances set out in paragraph 4.1.7 apply in respect of the Scheme.
- 7.4.19 For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (Ref. 2), it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.
- 7.4.20 Whilst it is acknowledged that landscape and visual impacts weigh against the Scheme, this should only be afforded **moderate negative weight** in the planning balance given the CNP to deliver solar infrastructure, the time limited nature of the Scheme and the localised and limited residual effects on landscape and visual receptors.

Transport and access (construction and decommissioning)

- 7.4.21 The assessment of effects in **ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1]**, concludes that, following the implementation of mitigation measures, impacts during construction of the Scheme are anticipated to result in potentially significant adverse residual effects at road links 9 (Moss Road – Askern Village), 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss), 13 (Marsh Road) and 14 (Thorpe Bank). However, the routes currently experience low baseline traffic numbers which is the reason for the higher percentage increase in traffic and, therefore, the overall impact is not deemed significant. In addition, any effects associated with the increase in traffic are temporary in nature and not due to a lack of capacity on the road network. Therefore, this matter is afforded **limited negative weight** in the planning balance.

Cultural Heritage

- 7.4.22 As reported in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, the Scheme will result in significant residual effects on Fenwick Hall moated site scheduled monument and Thorpe in Balne moated site, chapel and fishpond. Significant cumulative effects have also been identified upon two Grade II listed buildings at Riddings Farm and are considered under the 'Cumulative Impacts' section below.
- 7.4.23 The Fenwick Hall and Thorpe in Balne moated sites have been assessed in the Heritage Statement (see Appendix C of this Planning Statement) to result in 'less than substantial harm' owing mainly to the temporary and reversible change to the setting of the assets. Four other designated heritage assets will experience 'less than substantial harm' as a result of the Scheme however these are at the lower end of the spectrum of this harm.
- 7.4.24 In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant effects on cultural heritage and archaeology assets. An extensive range of mitigation measures have been incorporated into the Scheme design and has led to the exclusion of designated assets from the Order limits, incorporation of heritage buffer zones (as agreed with Historic England) and enhancement and replanting of hedgerows.
- 7.4.25 Through the statutory tests outlined in the Infrastructure Planning (Decisions) Regulations 2010 (Ref. 12), the Secretary of State when making a decision is duty bound to have regard to whether a scheme preserves or affects heritage assets with this being afforded great weight against the Scheme due to this statutory duty. The design mitigation demonstrates that the Applicant has taken care to develop the Scheme in a way that avoids, reduces and mitigates impacts on archaeology and heritage features, and accords with the mitigation hierarchy.
- 7.4.26 Given that the Heritage Statement (Appendix C of this Planning Statement) demonstrates that the Scheme has less than substantial harm, and this is at the lower end of the spectrum for the majority of these assets, this should be afforded **moderate negative weight** in the planning balance. However, this harm is necessary to achieve the substantial public benefit of delivering CNP infrastructure that outweighs this heritage impact. This is supported by paragraph 4.2.16 and 4.2.17 of NPS EN-1 (Ref. 2) which treats CNP infrastructure as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.

Agricultural land

- 7.4.27 The use of agricultural land for the Scheme is necessary and justified given the CNP to deliver energy infrastructure and the locational requirement for the Scheme to be positioned relatively close to a point of connection with available capacity, which for this Scheme is the Existing National Grid Thorpe Marsh Substation.
- 7.4.28 The majority of the impact of the Scheme on agricultural land is reversible which is secured 40 years after final commissioning through requirement 18 of Schedule 2 to the **draft DCO [EN010152/APP/3.1]**. The majority of the agricultural resource is therefore not lost and there is only a very small

amount of BMV loss (0.78 ha) within the Solar PV Site which is providing a landscape and ecological enhancement benefit. This loss is therefore given **limited negative weight** against the Scheme in the planning balance.

Cumulative Impacts

- 7.4.29 A significant cumulative effect has been identified upon two Grade II listed buildings at Riddings Farm, comprising the Barn and granary immediately to the northwest of Lily Hall and the Dovecote and attached building on west side of farmyard at Riddings Farm. This moderate adverse cumulative effect is due to the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (by planning applications ref. 22/01536/FUL and 22/01537/LBC) and the resultant additional erosion of the functional and historical setting of the farmstead's buildings in combination with the effects of the Scheme.
- 7.4.30 However, as is noted in the Heritage Statement (see Appendix C of this Planning Statement), the greater impact arises from the loss of the demolition of 'Lily Hall' farmhouse, whereas the Scheme makes a lesser, non-significant, contribution to the identified cumulative impact. Therefore, the harm arising from this cumulative impact is considered to be less than substantial and is therefore afforded **limited negative weight** in the planning balance.

Summary of Planning Balance

- 7.4.31 As demonstrated in Section 6 of this Planning Statement and above, the key adverse impacts of the Scheme relate to localised significant effects upon landscape and visual receptors and less than substantial harm to designated heritage assets. The design development of the Scheme has followed the mitigation hierarchy and all residual effects have been reduced as far as practicable through good design.
- 7.4.32 Paragraph 4.2.15 of NPS-EN1 (Ref. 2) makes it clear that, after the mitigation hierarchy has been applied, "*residual impacts are unlikely to outweigh the urgent need*" for CNP infrastructure and that "in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts". In this case, it is very clear that the extent and nature of the residual impacts do not trigger the exceptional circumstance set out in national planning policy to refuse consent with the presumption firmly engaged in favour of granting development consent, to deliver CNP infrastructure. By contrast, the benefits of the Scheme are very substantial in terms of climate change at both a national, regional and local level, leading to an overwhelming balance in favour of granting development consent for the Scheme. In terms of section 104(7), the benefits of the Scheme clearly and decisively outweigh its limited and localised adverse impacts.

8. Conclusion

- 8.1.1 This Planning Statement has demonstrated that the Scheme is in accordance with NPS EN-1 (Ref. 1), which contains, at paragraph 4.1.3, a presumption in favour of granting consent for energy NSIPs. There is also a presumption that the urgent need for CNP infrastructure, which includes solar, will *“in general outweigh any other residual impacts not being addressed by the application of the mitigation hierarchy”* (paragraph 4.1.7).
- 8.1.2 The Scheme will help meet the urgent need for CNP infrastructure to meet *“energy objectives, together with the national security, economic, commercial, and net zero benefits”* (Paragraph 3.3.63 of NPS EN-1 (Ref. 2)).
- 8.1.3 None of the limited exceptions in Section 104(4)-(8) of the PA 2008 (Ref. 1) apply. In particular, the adverse impacts that should be afforded moderate weight against the Scheme are limited, relating only to localised landscape and visual impacts and less than substantial harm to a very limited number of heritage assets. These impacts are significantly outweighed by the very substantial public interest benefits of the Scheme.
- 8.1.4 As identified in national policy and the Government’s energy strategy there is an urgent and critical need to bring forward large scale solar development to meet targets for decarbonisation and net zero. The Scheme will deliver these policy aims, providing a significant amount of low carbon electricity over its 40-year lifetime; and providing resilience, security and affordability of electricity supplies due to its large scale. It will therefore be a critical part of the national portfolio of renewable energy generation that is required to decarbonise its energy supply quickly.
- 8.1.5 It is clear that there is a compelling case and established need for the Scheme and that it will deliver national economic, social and environmental benefits in line with the Government’s clear objectives of delivering sustainable development.
- 8.1.6 The Scheme will also deliver other more localised local economic, social and environmental benefits. These include substantial ecological enhancements and employment generation during construction.
- 8.1.7 The analysis of planning policy compliance demonstrates that the need for the Scheme is supported by national planning policy and other national energy and environmental policy, and that the Scheme addresses relevant national and local planning policies through its design, avoiding sensitive areas and limiting adverse impacts where practicable.
- 8.1.8 In terms of the overall planning balance, the clear and substantial benefits of the Scheme clearly outweigh any adverse effects, which would be localised, short-term, temporary and/or reversible at the end of the Scheme’s lifetime. The presumption in favour of consent in NPS EN-1 (Ref. 2) sets out that these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure and that any tests set out in the NPS or other planning policy are to be treated as if they have been met.
- 8.1.9 This Planning Statement has demonstrated that the Scheme is in accordance with relevant national and local policy considered to be important and relevant and that substantial weight should be given to need when considering applications for consent under the PA 2008 (Ref. 1). Given

the urgent need for large scale solar development and the substantial benefits of the Scheme, there is a clear and compelling case for the DCO to be made.

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Abbreviations

Abbreviation/Term	Definition
PA 2008	Planning Act 2008
MW	Megawatts
DAS	Design and Access Statement
NPS	National Policy Statement
DCO	Development Consent Order
PV	Photovoltaic
CEMP	Construction Environmental Management Plan
DEMP	Decommissioning Environmental Management Plan
NIC	National Infrastructure Commission
NPPF	National Planning Policy Framework
LCT	Landscape Character Type
LCA	Landscape Character Area
ALC	Agricultural Land Classification
SAC	Special Areas of Conservation
DEFRA	Department for Environment, Food and Rural Affairs
SPA	Special Protection Areas
SSSI	Site of Special Scientific Interest
NNR	National Nature Reserve
LNR	Local Nature Reserve
LWS	Local Wildlife Sites
PPG	Planning Practice Guidance
SINC	Site of Nature Conservation Interest
SuD	Sustainable Urban Drainage Systems
PRoW	Public Right of Way
BMV	Best and Most Versatile Land
Ha	Hectares
EIA	Environmental Impact Assessment

Glossary of Frequently Used Terms

Term	Definition
Applicant	Fenwick Solar Project Limited
Biodiversity Net Gain (BNG)	BNG is a strategy to develop land and contribute to the recovery of nature. It is a way of making sure the habitat for wildlife is in a better state than it was before development.
Detailed Construction Environmental Management Plan (CEMP)	Subsequently produced following the appointment of the contractor, when the detailed design of the Scheme is known, in accordance with a requirement of the DCO prior to commencing construction. It will be a live document and will provide a systematic approach to environmental management so that environmental risks are identified, incorporated in all decision-making and managed appropriately.
Development Consent Order (DCO)	Development consent is required pursuant to the Planning Act 2008 for Nationally Significant Infrastructure Projects. A development consent order is the order which grants development consent when an application is made to the Secretary of State.
Ecology Mitigation Area	Ecology Mitigation Areas will be provided in Fields NE4, NE12, SE1, SE4 and SE5. These are areas where there will be no solar PV and associated infrastructure. The land will provide compensation for habitat loss including neutral grassland and will also provide mitigation in the form of habitat creation for faunal species. This includes a network of linear foot drains ('wader scrapes') or pools being created in Field NE4 to maintain shallow water levels and maximise edge habitat.
Environmental Impact Assessment (EIA)	A process by which information about environmental effects of a proposed development is collected, assessed and used to inform decision making. For certain projects, EIA is a statutory requirement.
Field Stations	Areas of hardstanding within the Site that will house inverters, transformers, and switchgear.
Framework Construction Environmental Management Plan (CEMP)	Provides a framework from which a final CEMP will be developed to avoid, minimise or mitigate any construction effects on the environment.
Framework Decommissioning Environmental Management Plan (DEMP)	A specific plan developed to ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

Framework Operational Environmental Management Plan (OEMP)	A specific plan developed to ensure that appropriate environmental management practices are followed during the operation and maintenance phase of a project.
Grid Connection Cables	The underground cables linking the Solar PV Site to the Existing National Grid Thorpe Marsh Substation.
Grid Connection Corridor	The maximum extent of land within which the grid connection infrastructure would be located.
Grid Connection Line Drop	The Grid Connection Line Drop would comprise of below ground cables connecting the On-Site Substation to a new cable sealing end compound at the base of an existing on-site 400 kV overhead line tower within Field SE2. All works to establish the cable sealing end compound, and works within the cable sealing end compound to modify the tower and connect the Scheme's cables to the NETS would remain under National Grid's control and do not form part of the Scheme.
Grid Connection Working Width	Width of the construction area for the Grid Connection Cables which includes haul road, spoil storage, cable trench and temporary drainage during cable installation.
Heritage Asset	A building, monument, site, place, area or landscape identified as having a degree of significance meriting consideration in planning decisions, because of its heritage interest. It includes designated heritage assets and assets identified by the local planning authority (including local listing).
Heritage Buffer Area	Heritage Buffer Areas will be provided in Fields SE1 and NE12. There will be no solar PV and associated infrastructure installed within these areas and land will be managed to provide setting buffer for the Scheduled Monument Fenwick Hall moated site, preserve the ridge and furrow and preserve in situ areas of archaeological interest identified from the geophysical survey.
Inverter	Inverters convert the direct current (DC) electricity collected by the PV modules into alternating current (AC), which allows the electricity generated to be exported to the National Grid. Battery energy storage systems also use inverters to convert between DC and AC. The batteries function in DC and electricity must be converted to AC to pass into or from the National Grid.
Mitigation	Measures including any process, activity, or design to avoid, prevent, reduce, or, if possible, offset any identified significant adverse effects on the environment.

National Grid Electricity Transmission (NGET) ('National Grid')	National Grid operate the national electricity transmission network across Great Britain and own and maintain the network in England and Wales, providing electricity supplies from generating stations to local distribution companies. National Grid does not distribute electricity to individual premises, but its role in the wholesale market is vital to ensuring a reliable, secure, and quality supply to all.
Nationally Significant Infrastructure Projects (NSIP)	NSIPs are large scale developments such as certain new harbours, power generating stations (including wind farms), highways developments and electricity transmission lines, which require a type of consent known as 'development consent' under procedures governed by the Planning Act 2008 (and amended by the Localism Act 2011).
On-Site Cables	Cables within the Solar PV Site which connect the Solar PV Panels to inverters, and inverters to transformers.
On-Site Substation	New substation within the Solar PV Site that would receive electricity from the Field Stations and BESS for export to the National Grid, and import electricity from the National Grid for storage within the BESS.
Order Limits	The limits shown on the land plans and works plans within which the authorised development may be carried out and land acquired or used.
Planning Act 2008	An Act to establish the Infrastructure Planning Commission and make provision about its functions; to make provision about, and about matters ancillary to, the authorisation of projects for the development of nationally significant infrastructure; to make provision about town and country planning; to make provision about the imposition of a Community Infrastructure Levy; and for connected purposes.
Planning Statement	This document.
Receptor	A component of the natural or man-made environment that is affected by an impact, including people.
Scheme	Fenwick Solar Farm, comprising Solar PV Panels, On-Site Cables, , BESS, On-Site Substation, Grid Connection Corridor and Grid Connection Line Drop, as well as other supporting infrastructure including fencing, access tracks, drainage, and biodiversity and landscaping enhancements.
Secretary of State	His Majesty's principal secretaries of state, or secretaries of state, are senior ministers of the Crown in the Government of the United Kingdom. In this case, reference is made to the Secretary of State for Energy Security and Net Zero.

Solar PV Panel	Convert sunlight into electrical current (as direct current, DC). Typically consist of a series of photovoltaic cells beneath a layer of toughened, low reflectivity glass.
Solar PV Site	The portion of the Scheme where Solar PV Panels, BESS, On-Site Substation , and associated infrastructure would be located.
Switchgear	A combination of electrical disconnect switches, fuses, or circuit breakers used to control, protect and isolate electrical equipment.
The Planning Inspectorate	The Planning Inspectorate deals with planning appeals, national infrastructure planning applications, examinations of local plans and other planning-related and specialist casework in England.
The Site	The collective term for the Solar PV Site, Grid Connection Corridor, and the Existing National Grid Thorpe Marsh Substation.
Transformers	Transformers control the voltage of the electricity generated across the site before it reaches the electrical infrastructure.

Appendix A NPS Accordance Tables

NPS Accordance Tables

NPS EN-1 Overarching National Policy Statement for Energy

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Government policy on energy and energy infrastructure development		
Paragraph 2.1.3	To produce the energy required for the UK and ensure it can be transported to where it is needed, a significant amount of infrastructure is needed at both local and national scale. High quality infrastructure is crucial for economic growth, boosting productivity and competitiveness. Part 3 of this NPS provides further details on the need for - and importance of - energy to economic prosperity and social well-being.	<p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explains that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p> <p>The Scheme would contribute to an adequate and dependable UK energy generation mix, through enabling the generation of more low-carbon power from indigenous and renewable resources.</p> <p>Over the 40-year lifetime of the Scheme, it would generate enough electricity to power approximately 120.000 homes per annum based on Ofgem data. This is a significant increase in electricity generation with recognition that more electricity generation is needed to meet demand</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 2.2.1	<p>In June 2019, the UK became the first major economy to legislate for a 2050 net zero Greenhouse Gases ('GHG') emissions target through the Climate Change Act 2008 (2050 Target Amendment) Order 2019. In December 2020, the UK communicated its Nationally Determined Contributions to reduce GHG emissions by at least 68 per cent from 1990 levels by 2030.¹⁹ In April 2021, the government legislated for the sixth carbon budget (CB6), which requires the UK to reduce GHG emissions by 78 per cent by 2035 compared to 1990 levels.</p>	<p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p> <p>ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] presents a lifecycle GHG impact assessment over the lifetime of the Scheme. It concludes that renewable energy generation from the Scheme during the first year of operation is estimated to be 352,766 MWh, which subsequently provides 12,940,146 MWh of total energy generation over the assessed 40-year Scheme design life, factoring in reductions in performance and degradation.</p> <p>Total operational emissions over the design life of the Scheme are estimated at 542,681 tCO₂e. Combining this figure with the estimated lifetime output from a Combined Cycle Gas Turbine (CCGT) generating facility (over 4 million tCO₂e), the total greenhouse gas savings for a 35-year</p>

**NPS EN-1
 Relevant Paragraph**

**NPS EN-1
 Detail**

**NPS EN-1
 Proposed Development compliance**

		<p>period (breakeven period for emissions will be under 5 years of operation) will approximately be 3.5 million tCO₂e.</p> <p>GHG impact during construction, operation and decommissioning is assessed as being minor adverse and not significant. It is considered that the overall GHG impact of the Scheme is beneficial and significant, as it will play a part in achieving the rate of transition required by nationally set policy commitments and supporting the trajectory towards net zero.</p>
<p>Paragraph 2.3.3</p>	<p>Our objectives for the energy system are to ensure our supply of energy always remains secure, reliable, affordable, and consistent with meeting our target to cut GHG emissions to net zero by 2050, including through delivery of our carbon budgets and Nationally Determined Contribution. This will require a step change in the decarbonisation of our energy system</p>	<p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p> <p>The Scheme will deliver low-carbon generation facilities which is necessary to meet future electricity demand growth and achieve essential wider societal carbon savings. In this context, the Scheme is therefore an essential stepping stone</p>

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Paragraph 2.3.4

Meeting these objectives necessitates a significant amount of new energy infrastructure, both large national significant developments and small-scale developments determined at a local scale. This includes the infrastructure needed to convert primary sources of energy (e.g. wind) into energy carriers (e.g. electricity or hydrogen), and to store and transport primary fuels and energy carriers into and around the country. It also includes the infrastructure needed to capture, transport and store carbon dioxide. The requirement for new energy infrastructure will present opportunities for the UK and contributes towards our ambition to support jobs in the UK's clean energy industry and local supply chains

towards the future of efficient decarbonisation through the deployment of large- scale, technologically and geographically diverse low-carbon generation assets.

The **Statement of Need [EN010152/APP/7.3]** and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency..

ES Volume I Chapter 12: Socio-Economic and Land Use [EN010152/APP/6.1] states it is estimated that the Scheme will support on average 225 total net jobs per annum during the construction phase. Of these, 102 jobs per annum would be expected to be taken up by residents within a 60-minute drive time. The jobs created will be in the renewable energy sector, specifically relating to solar installation, but also electricity transmission and supply chain. As such, they will contribute to the development of skills needed for the UK's transition to net zero by 2050 (as required by the Climate Change Act 2008 (2050

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 2.3.5	<p>The sources of energy we use are changing. Since the industrial revolution, our energy system has been dominated by fossil fuels. That remains the case today. Although representing a record low, fossil fuels still accounted for just over 76 per cent of energy supply in 2020. We need to dramatically increase the volume of energy supplied from low carbon sources.</p>	<p>Target Amendment Order) 2019 and described within the Net Zero Strategy: Building Back Greener.</p> <p>This policy notes the need to dramatically increase the volume of energy supplies from low carbon sources, requiring a large amount of low-carbon electricity generation proposed as part of the Scheme.</p> <p>The Statement of Need [EN010152/APP/7.3] explains that the Scheme will be a substantial infrastructure asset, which if consented will deliver large amounts of cheap, secure and low-carbon electricity.</p>
Paragraph 2.3.6	<p>We need to transform the energy system, tackling emissions while continuing to ensure secure and reliable supply. This includes increasing our supply of clean energy from renewables.</p>	<p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explains that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p>
Paragraph 2.3.7	<p>Decarbonisation means we are likely to become more dependent on some forms of energy compared to others. Using electrification to reduce emissions in large parts of transport, heating and industry could lead to more than</p>	<p>This policy emphasises that in addition to the need to decarbonise existing electricity supplies, a substantial increase in the total electricity generated to enable decarbonisation across all</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>half of final energy demand being met by electricity in 2050, up from 17 per cent in 2019, representing a doubling in demand for electricity.</p>	<p>sectors, is needed. This again emphasises the scale of low carbon electricity generation necessary to meet these targets. As outlined in the Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement, the Scheme will generate a large amount of low carbon electricity to contribute to meeting this need.</p>
<p>The need for new nationally significant infrastructure projects</p>		
<p>Paragraph 3.1.1</p>	<p>This Part of the NPS explains why the government sees a need for significant amounts of new large-scale energy infrastructure to meet its energy objectives and why the government considers that the need for such infrastructure is urgent.</p>	<p>These policies recognise that there are expected to be significant residual impacts associated with large scale energy infrastructure. A summary of environmental effects is found within ES Volume I Chapter 16: Summary of Significant</p>
<p>Paragraph 3.1.2</p>	<p>However, it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts. These effects will be minimised by the application of policy set out in Parts 4 and 5 of this NPS. See also Part 2 of each technology specific NPS.</p>	<p>Environmental Effects [EN010152/APP/6.1]. Overall, with appropriate mitigation implemented, this identifies a relatively limited number of residual effects of the Scheme. When considered relative to the large-scale nature of the Scheme these effects are considered to be relatively limited and outweighed by the significant national benefits that the Scheme will provide by providing much needed large scale renewable energy generation.</p> <p>The Applicant notes that, in accordance with this policy, the need for infrastructure such as the Scheme is urgent and the SoS should give substantial weight to this need in decision-making</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 3.2.3	It is not the role of the planning system to deliver specific amounts or limit any form of infrastructure covered by this NPS. It is for industry to propose new energy infrastructure projects that they assess to be viable within the strategic framework set by government. This is the nature of a market-based energy system. With the exception of new coal or large-scale oil-fired electricity generation, the government does not consider it appropriate for planning policy to set limits on different technologies but planning policy can be used to support the government's ambitions in energy policy and other policy areas.	<p>on the Application. It should be noted that NPS EN-1 emphasises that there are no policy limits set for different technologies. Presence of additional low carbon Schemes in the area or elsewhere should not, therefore, affect the demonstrable need for the Scheme.</p> <p>It should be noted that NPS EN-1 emphasises that there are no policy limits set for different technologies. Presence of additional low carbon schemes in the area or elsewhere should not, therefore, affect the demonstrable need for the Scheme. Nor should it prevent the growing competition in the energy sector, that will help to reduce costs, spur technological advancement and increase efficiency.</p>
Paragraph 3.2.4	It is not the government's intention in presenting any of the figures or targets in this NPS to propose limits on any new infrastructure that can be consented in accordance with the energy NPSs. A large number of consented projects can help deliver an affordable electricity system, by driving competition and reducing costs within and amongst different technology and infrastructure types. Consenting new projects also enables projects utilising more advanced technology and greater efficiency to come forward. The delivery of an affordable energy system does not always mean picking the least cost	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>technologies. A diversity of supply can aid in ensuring affordability for the system overall and relative costs can change over time, particularly for new and emerging technologies. It is not the role of the planning system to compare the costs of individual developments or technology types.</p>	
<p>Paragraph 3.2.5</p>	<p>The government has other mechanisms to influence the delivery of its energy objectives and imposing limits on the consenting of different types of energy infrastructure would reduce competition, increase costs, and disincentivise newer, more efficient solutions coming forward. This does not reduce the need for individual projects to demonstrate compliance with planning and environmental requirements or mean that everything that obtains development consent will get built.</p>	
<p>Paragraph 3.2.6</p>	<p>The Secretary of State should therefore assess all applications for development consent for the types of infrastructure covered by the energy NPSs on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part. [Bold formatted in the NPS]</p>	<p>The Applicant notes that, in accordance with this policy, the need for infrastructure such as the Scheme is acknowledged and is urgent. A Statement of Need [EN010152/APP/7.3] is submitted with the Application clearly setting out the need for the project. It is considered to be an important and relevant matter that policy considers this need to be demonstrated.</p>
<p>Paragraph 3.2.7</p>	<p>In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008. [Bold formatted in the NPS]</p>	<p>This Policy further emphasises that the Secretary of State should give substantial weight to the need for new energy infrastructure when determining applications for development consent.</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 3.2.8	<p>The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS. [Bold formatted in the NPS]</p>	<p>A Statement of Need [EN010152/APP/7.3] is submitted with the Application clearly setting out the need for the project. It is considered to be an important and relevant matter that policy considers this need to be demonstrated</p>
Paragraph 3.3.3	<p>To ensure that there is sufficient electricity to meet demand, new electricity infrastructure will have to be built to replace output from retiring plants and to ensure we can meet increased demand. Our analysis suggests that even with major improvements in overall energy efficiency, and increased flexibility in the energy system, demand for electricity is likely to increase significantly over the coming years and could more than double by 2050 as large parts of transport, heating and industry decarbonise by switching from fossil fuels to low carbon electricity. The Impact Assessment for CB6 shows an illustrative range of 465-515TWh in 2035 and 610-800TWh in 2050.</p>	<p>As explained in the Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement the Scheme will help meet the demand for energy which is expected to rise substantially in the future.</p>
Paragraph 3.3.12	<p>Decentralised and community energy systems such as micro-generation contribute to our targets on reducing carbon emissions and increasing energy security. These technologies could also lead to some reduction in demand on the main generation and transmission system. However, the government does not believe they will replace the need for new large-scale electricity infrastructure to meet our energy objectives. This is because connection of large-scale, centralised electricity generating facilities via a high voltage transmission system enables the pooling of both generation and</p>	<p>This policy clearly sets out that while decentralised and community energy schemes such as rooftop solar, can contribute to targets, it will not replace the need for new large-scale electricity infrastructure.</p> <p>As also explained in the Statement of Need [EN010152/APP/7.3], this policy acknowledges that large scale electricity generation facilities are needed. The Scheme would connect directly to</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	demand, which in turn offers a number of economic and other benefits, such as more efficient bulk transfer of power and enabling surplus generation capacity in one area to be used to cover shortfalls elsewhere.	<p>the NETS, to enable the transfer of the electricity it generates over a wide geographical area, as per this policy.</p> <p>The Scheme should be considered on the basis that its need is established and this established and urgent need should be given substantial weight in the decision.</p>
Paragraph 3.3.13	The Net Zero Strategy sets out the government’s ambition for increasing the deployment of low carbon energy infrastructure consistent with delivering our carbon budgets and the 2050 net zero target. This made clear the commitment that the cost of the transition to net zero should be fair and affordable.	<p>As set out in the Statement of Need [EN010152/APP/7.3], large-scale solar power decarbonises the electricity system and lowers the market price of electricity by generating power so that expensive and more carbon intensive forms of generation do not need to generate as much. In doing so, solar power delivers national decarbonisation benefits and supports consumer affordability aims, to the benefit of electricity consumers.</p> <p>The Statement of Need [EN010152/APP/7.3] sets out that due to technological advances, solar facilities are already among the cheapest form of electricity generation in the UK and Government forecasts indicate that costs will continue to reduce in the future. Solar power is economically attractive in the UK against many other forms of conventional and renewable generation.</p>
Paragraph 3.3.16	If demand for electricity doubles by 2050, we will need a fourfold increase in low carbon generation and significant	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>expansion of the networks that transport power to where it is needed. In addition, we committed in the Net Zero Strategy to take action so that by 2035, all our electricity will come from low carbon sources, subject to security of supply, whilst meeting a 40-60 per cent increase in electricity demand. This means that the majority of new generating capacity needs to be low carbon</p>	<p>that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p>
<p>Paragraph 3.3.19</p>	<p>Given the changing nature of the energy landscape, we need a diverse mix of electricity infrastructure to come forward, so that we can deliver a secure, reliable, affordable, and net zero consistent system in 2050 for a wide range of demand, decarbonisation, and technology scenarios.</p>	<p>As explained in the Statement of Need [EN010152/APP/7.3], large scale solar is expected to be an important part of the diverse energy mix that this policy sets out is needed.</p>
<p>Paragraph 3.3.20</p>	<p>Wind and solar are the lowest cost ways of generating electricity, helping reduce costs and providing a clean and secure source of electricity supply (as they are not reliant on fuel for generation). Our analysis shows that a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar.</p>	<p>This policy emphasises that solar is also one of the lowest cost ways of generating electricity and that solar is one of the predominant technologies anticipated to produce electricity by 2050. The Scheme is therefore strongly supported by both the need for decarbonised grid and affordable energy supplies.</p> <p>The cost of solar generation is already super-competitive against the cost of other forms of conventional and low-carbon generation, both locally and more widely. Internationally there is the ongoing trend of solar generation assets becoming larger and more affordable, each</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>subsequent project providing a real-life demonstration that solar schemes of similar size and scale as the Scheme can be developed locally. The development of such schemes will provide decarbonisation and commercial benefits to consumers. Single large-scale solar schemes deliver more quickly and at a lower unit cost than multiple independent schemes which make up the same total capacity, bringing forward carbon reductions and more affordable electricity, in line with government policy.</p>
Paragraph 3.3.21	<p>As part of delivering this, UK government announced in the British Energy Security Strategy an ambition to deliver up to 50 gigawatts (GW) of offshore wind by 2030, including up to 5GW of floating wind, and the requirement in the Energy White Paper for sustained growth in the capacity of onshore wind and solar in the next decade.</p>	<p>As explained in the Statement of Need [EN010152/APP/7.3], large scale solar is expected to be an important part of the requirement for the Energy White Paper to help deliver sustained growth of solar energy in the next decade, that this policy sets out is needed.</p>
Paragraph 3.3.22	<p>However, it is recognised that ensuring affordable system reliability, today and in the future, means wind and solar need to be complemented with technologies which supply electricity, or reduce demand, when the wind is not blowing, or the sun does not shine.</p>	
Paragraph 3.3.25	<p>Storage has a key role to play in achieving net zero and providing flexibility to the energy system, so that high volumes of low carbon power, heat and transport can be integrated.</p>	<p>The BESS Area, when used for grid balancing purposes, is likely to result in significant additional carbon savings over its 40-year design life.</p>
Paragraph 3.3.26	<p>Storage is needed to reduce the costs of the electricity system and increase reliability by storing surplus electricity in times of low demand to provide electricity</p>	<p>As outlined in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1], the capacity of the</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>when demand is higher. There is currently around 4GW of electricity storage operational in GB, around 3GW of which is pumped hydro storage and around 1GW is battery storage.</p>	<p>Scheme’s BESS Area is estimated to be around 950 MWh.</p> <p>Should the BESS Area be charged primarily from the Scheme and supplemented by grid charging, then discharged back into the grid once each day at a typical round-trip efficiency of 85% and an overall lifetime degradation rate of 80%, it is estimated to supply 13,870 GWh to the electricity grid over its 40-year design life. With the operation and maintenance carbon intensity of the Scheme at 18.39 gCO₂e/kWh (or 0.018 tCO₂e/MWh) compared to 0.460 tCO₂e/MWh for an OCGT, the use of the Scheme’s BESS Area for grid balancing purposes could still deliver a significant carbon saving of approximately 4.1 million tonnes CO₂e over its design life. However, this figure may vary depending on the extent of grid charging</p>
<p>Paragraph 3.3.27</p>	<p>Storage can provide various services, locally and at the national level. These include maximising the usable output from intermittent low carbon generation (e.g. solar and wind), reducing the total amount of generation capacity needed on the system; providing a range of balancing services to the NETSO and Distribution Network Operators (DNOs) to help operate the system; and reducing constraints on the networks, helping to defer or avoid the need for costly network upgrades as demand increases.</p>	<p>As outlined in ES Volume I Chapter 6: Climate [EN01052/APP/6.1] the BESS Area associated with the Scheme provides additional carbon saving opportunities. Relatively fast response power sources such as battery storage have an important role to play in helping to balance supply and demand within the electricity grid. This grid balancing function is often performed using high carbon intensity power sources such as open cycle gas turbines (OCGT), so the use of a battery charged from solar PV generation can deliver an</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 3.3.57	Government has committed to reduce GHG emissions by 78 per cent by 2035 under carbon budget 6. According to the Net Zero Strategy this means that by 2035, all our electricity will need to come from low carbon sources, subject to security of supply, whilst meeting a 40-60 per cent increase in demand.	<p>additional direct carbon saving relative to an OCGT</p> <hr/> <p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p>
Paragraph 3.3.58	Given the urgent need for new electricity infrastructure and the time it takes for electricity NSIPs to move from design conception to operation, there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its economy.	The Scheme has great potential to deliver a substantial amount of low carbon electricity in a short timescale, with the potential to be operational by 2030. Therefore, consent on low carbon schemes, like that proposed at Fenwick Solar Farm Project, that are compliant with policy and can be delivered urgently should be granted without delay.
Paragraph 3.3.59	<p>All the generating technologies mentioned above are urgently needed to meet the Government’s energy objectives by:</p> <ul style="list-style-type: none"> - providing security of supply (by reducing reliance on imported oil and gas, avoiding concentration risk and not relying on one fuel or generation type) 	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> - providing an affordable, reliable system (through the deployment of technologies with complementary characteristics) - ensuring the system is net zero consistent (by remaining in line with our carbon budgets and maintaining the options required to deliver for a wide range of demand, decarbonisation and technology scenarios, including where there are difficulties with delivering any technology) 	<p>the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.</p> <p>As part of a diverse generation mix, solar generation contributes to improve the stability of capacity utilisations among renewable generators. When developed alongside other renewable technologies, large-scale solar will smooth out seasonal variations in total GB renewable generation, more closely matching anticipated seasonal levels of demand. Other conventional low-carbon generation (e.g. tidal, nuclear or conventional carbon with CCUS) remain important contributors to achieving the 2050 Net Zero obligation.</p>
Paragraph 3.3.60	Known generation technologies that are included within the scope of this NPS (and would be classed as an NSIP if above the relevant capacity thresholds set out under the Planning Act 2008) include: ... Solar PV.	This confirms that solar PV generation facilities, such as the Scheme, are covered by the published suite of Energy NPSs and are urgently required.
Paragraph 3.3.61	The need for all these types of infrastructure is established by this NPS and is a combination of many or all of them is urgently required for both energy security and Net Zero.	As per NPS EN-1 paragraph 3.2.7, the Scheme should be considered on the basis that its need is established and this urgent need should be given substantial weight in the decision on the Application.
Paragraph 3.3.62	Government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. Section 4.2 states which energy	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	generating technologies are low carbon and are therefore CNP infrastructure.	amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.
Paragraph 3.3.63	Subject to any legal requirements, the urgent need for CNP Infrastructure to achieving our energy objectives, together with the national security, economic, commercial, and net zero benefits, will in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy. Government strongly supports the delivery of CNP Infrastructure and it should be progressed as quickly as possible.	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.
Paragraph 3.3.65	There is an urgent need for new electricity network infrastructure to be brought forward at pace to meet our energy objectives.	This policy confirms the urgent need for the Scheme. The Scheme has great potential to deliver a substantial amount of low carbon electricity in a short timescale, with the potential to be operational by 2030.
Paragraph 3.3.82	Government has committed to reduce GHG emissions by 78 per cent by 2035 under carbon budget 6. According to the Net Zero Strategy this means that by 2035, all our electricity will need to come from low carbon sources,	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	subject to security of supply, whilst meeting a 40-60 per cent increase in demand.	Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.
Paragraph 3.3.83	Given the urgent need for new electricity infrastructure and the time it takes for electricity NSIPs to move from design conception to operation, there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible, given the crucial role of electricity as the UK decarbonises its economy.	This policy again emphasises the urgent need for the Scheme. The Scheme has great potential to deliver a substantial amount of low carbon electricity in a short timescale, with the potential to be operational by 2030.
Assessment Principles		
Paragraph 4.1.5	<p>In considering any proposed development, in particular when weighing its adverse impacts against its benefits, the Secretary of State should take into account:</p> <ul style="list-style-type: none"> - its potential benefits including its contribution to meeting the need for energy infrastructure, job creation, reduction of geographical disparities, environmental enhancements, and any long-term or wider benefits -its potential adverse impacts, including on the environment, and including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate or compensate for any adverse impacts, following the mitigation hierarchy 	<p>The Applicant has produced a suite of documents that are submitted with this DCO Application, that have assessed the adverse impacts of the Scheme, as well as the benefits it will bring. The suite of documents are outlined in the Guide to the Application [EN/010152/APP/1.2]</p> <p>Section 5.3 of this Planning Statement sets out the benefits of the scheme. Along with contributing to a sufficient, reliable and affordable energy system whilst helping the government decarbonise, and meet national climate change targets and budgets, the Scheme provides a number of other benefits which are set out below.</p>

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

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Electricity Generation – Over the 40-year lifetime of the Scheme, it would generate enough electricity to power approximately 120,000 homes per annum based on Ofgem data. This is a significant increase in electricity generation with recognition that more electricity generation is needed to meet demand.

Decarbonisation – Based on comparison with Combined Cycle Gas Turbine (CCGT) it is estimated that the solar power generation and the BESS Area will save over 4 million tCO₂e over the design life of the Scheme. The use of the BESS also provides the opportunity for additional carbon savings, as set out in **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**. The overall greenhouse gas impact of the Scheme is therefore significantly beneficial and the Scheme will play a vital part in achieving the rate of transition required by nationally set policy commitments and supporting the trajectory towards net zero.

Environmental (or Ecological) Benefits – The Scheme would provide a number of environmental and ecological enhancements and has been designed to avoid key nature conservation and ecological features present within or adjacent to the Order limits. These measures are set out in

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

		<p>the Framework LEMP [EN010152/APP/7.14]. In addition to avoidance measures, existing vegetation and habitats will be retained and enhanced, to protect existing wildlife corridors and retain and improve connectivity and valuable habitats.</p> <p>Economic Benefits - The Scheme will support, on average, 225 total net jobs per annum during construction. Of these, 102 jobs per annum are expected to be taken up by residents within a 60-minute drive time area.</p>
Paragraph 4.1.6	In this context, the Secretary of State should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels.	The environmental, social and economic benefits of the Scheme are set out in Section 5.3 of this Planning Statement. The adverse impacts of the Scheme are set out in relevant chapters, figures and appendices of the ES [EN010152/APP/6.1/6.2/6.3] . These take account of impacts and benefits at national, regional and local levels.
Paragraph 4.1.7	Where this NPS or the relevant technology specific NPSs require an applicant to mitigate a particular impact as far as possible, but the Secretary of State considers that there would still be residual adverse effects after the implementation of such mitigation measures, the Secretary of State should weigh those residual effects against the benefits of the proposed development. For projects which qualify as CNP Infrastructure, it is likely	<p>The adverse impacts of the Scheme are set out in relevant chapters, figures appendices of the ES [EN010152/APP/6.1/6.2/6.3]. These take account of impacts and benefits at national, regional and local levels.</p> <p>Section 8 of the Planning Statement concludes that the adverse residual impacts following</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>that the need case will outweigh the residual effects in all but the most exceptional cases. This presumption, however, does not apply to residual impacts which presents an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero.</p>	<p>mitigation that should be afforded moderate weight against the Scheme are limited, relating only to localised landscape and visual impacts and less than substantial harm to a very limited number of heritage assets. These impacts are significantly outweighed by the very substantial public interest benefits of the Scheme.</p> <p>The analysis of planning policy compliance demonstrates that the need for the Scheme is supported by national planning policy and other national energy and environmental policy, and that the Scheme addresses relevant national and local planning policies through its design, avoiding sensitive areas and limiting adverse impacts where practicable.</p> <p>In terms of the overall planning balance, the clear and substantial benefits of the Scheme clearly outweigh any adverse effects, which would be localised, short-term, temporary and/or reversible at the end of the Scheme’s lifetime. The presumption in favour of consent in NPS EN-1 (Ref. 2) sets out that these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure and that any tests set out in NPS EN-1 or other planning policy are to be treated as if they have been met.</p>
<p>Paragraph 4.1.12</p>	<p>Other matters that the Secretary of State may consider both important and relevant to their decision-making may</p>	<p>Other matters that the Secretary of State may consider both important and relevant to their</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	include Development Plan documents or other documents in the Local Development Framework	<p>decision-making including Development Plan documents or other documents in the Local Development Framework, and emerging plans, have been considered in the Planning Statement which provides an assessment of the Scheme's compliance with the policies within these documents.</p> <p>An assessment of the Scheme against the local planning policies outlined in the Doncaster Local Plan is set out within Appendix B of this Planning Statement.</p>
Paragraph 4.1.13	Where the project conflicts with a proposal in a draft Development Plan, the Secretary of State should take account of the stage which the Development Plan document in England or Local Development Plan in Wales has reached in deciding what weight to give to the plan for the purposes of determining the planning significance of what is replaced, prevented, or precluded.	The Scheme has taken account of the stage that the Local Development Plan is at. The Doncaster Local Plan has been adopted and is therefore afforded full weight.
Paragraph 4.1.14	The closer the Development Plan document in England or Local Development Plan in Wales is to being adopted by the LPA, the greater weight which can be attached to it.	<p>The Doncaster Local Plan has been adopted and is therefore afforded full weight.</p> <p>An assessment of the Scheme against the local planning policies outlined in the Doncaster Local Plan is set out within Appendix B of this Planning Statement.</p>
Paragraph 4.1.15	In the event of a conflict between these documents and an NPS, the NPS prevails for the purpose of Secretary of	The Applicant notes that in the event of a conflict between these documents and an NPS, the NPS

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	State decision making given the national significance of the infrastructure.	prevails for the purpose of Secretary of State decision making given the national significance of the infrastructure.
Paragraph 4.2.4	Government has therefore concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure.	<p>This confirms low carbon and renewable energy infrastructure, such as the Scheme, is a CNP, and is urgently needed to help meet the Governments energy objectives.</p> <p>The Statement of Need [EN010152/APP/7.3] concludes that in order to meet these objectives, and bring forward CNP infrastructure as quickly as possible, the evidence points to the development of proven technologies such as large scale solar. It also states that such schemes should be brought forwards with urgency to make tangible and essential advances in decarbonisation in the near term.</p>
Paragraph 4.2.5	This does not extend the definition of what counts as nationally significant infrastructure: the scope remains as set out in the Planning Act 2008. Low carbon infrastructure for the purposes of this policy means: - for electricity generation, all onshore and offshore generation that does not involve fossil fuel combustion (that is, renewable generation, including anaerobic digestion and other plants that convert residual waste into energy, including combustion, provided they meet existing definitions of low carbon; and nuclear generation), as well as natural gas fired generation which is carbon capture ready	This policy confirms that the solar PV generation facilities, such as the Scheme, are covered by the definition of “CNP” and as set out in the Statement of Need [EN010152/APP/7.3] and Section 5 of this Planning Statement, and are urgently required.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.2.6	The overarching need case for each type of energy infrastructure and the substantial weight which should be given to this need in assessing applications, as set out in paragraphs 3.2.6 to 3.2.8 of EN-1, is the starting point for all assessments of energy infrastructure applications.	This confirms the Scheme should be considered on the basis that its need is established as a Critical National Priority (CNP) and the urgent need for this infrastructure should be given substantial weight in the decision-making process.
Paragraph 4.2.7	The CNP policy does not create an additional or cumulative need case or weighting to that which is already outlined for each type of energy infrastructure. The policy applies following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy. As such, it is relevant during Secretary of State decision making and specifically in reference to any residual impacts that have been identified. It should therefore also be given consideration by the Examining Authority when it is making its recommendation to the Secretary of State.	<p>The Statement of Need [EN010152/APP/7.3] and Section 5 of this Planning Statement set out the need for the Scheme.</p> <p>The Statement of Need [EN010152/APP/7.3] concludes that in order to meet these objectives, and bring forward CNP infrastructure as quickly as possible, the evidence points to the development of proven technologies such as large scale solar. It also states that such schemes should be brought forwards with urgency to make tangible and essential advances in decarbonisation in the near term.</p>
Paragraph 4.2.8	During decision making, the CNP policy will influence how non-HRA and non- MCZ residual impacts are considered in the planning balance. The policy will therefore also influence how the Secretary of State considers whether tests requiring clear outweighing of harm, exceptionality, or very special circumstances have been met by a CNP Infrastructure application. Further detail is provided in paragraphs 4.2.15 to 4.2.17, and Figure 2.	These paragraphs make it clear that when consenting a CNP project, consideration should be given to CNP policy when considering whether tests are met by the application.
Paragraph 4.2.9	During decision making, the CNP policy also explains the Secretary of State’s approach to HRA derogations and	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>MCZ assessments. Specifically, the policy explains how the alternative solutions and IROPI tests are considered by the Secretary of State. Further detail is provided in paragraphs 4.2.18 to 4.2.22, and Figure 3.</p>	
Paragraph 4.2.10	<p>Applicants for CNP infrastructure must continue to show how their application meets the requirements in this NPS and the relevant technology specific NPS, applying the mitigation hierarchy, as well as any other legal and regulatory requirements.</p>	<p>This Planning Statement sets out how the application meets the requirements of the designated NPSs including NPS EN-1, NPS EN-3 and NPS EN-5. The mitigation hierarchy has been applied throughout the design and development of the Scheme and has resulted in a project with limited significant residual adverse effects. The ES [EN010152/APP/6.1/6.2/6.3/6.4] sets out that any residual effects are those that cannot be avoided, reduced or mitigated.</p>
Paragraph 4.2.11	<p>Applicants must apply the mitigation hierarchy and demonstrate it has been applied. They should also seek the advice of the appropriate SNCB or other relevant statutory body when undertaking this process. Applicants should demonstrate that all residual impacts are those that cannot be avoided, reduced or mitigated.</p>	<p>With appropriate mitigation implemented, the impacts relating to localised landscape and visual impacts and to a very limited number of heritage assets are determined as being less than substantial. These impacts are significantly outweighed by the very substantial public interest benefits of the Scheme.</p>
Paragraph 4.2.12	<p>Applicants should set out how residual impacts will be compensated for as far as possible. Applicants should also set out how any mitigation or compensation measures will be monitored and reporting agreed to ensure success and that action is taken.</p>	<p>ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1] sets out the cumulative impacts of the development and details how the Applicant has taken these into</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		account throughout the development of the Scheme.
Paragraph 4.2.14	The Secretary of State will continue to consider the impacts and benefits of all CNP Infrastructure applications on a case-by-case basis. The Secretary of State must be satisfied that the applicant's assessment demonstrates that the requirements set out above have been met	The Applicant's assessment within the ES [EN010152/APP/6.1/6.2/6.3] demonstrates that the requirements of this policy have been met.
Paragraph 4.2.15	Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts. The exception to this presumption of consent are residual impacts onshore and offshore which present an unacceptable risk to, or unacceptable interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.	It is acknowledged in these paragraphs that residual non HRA or non MCZ impacts are unlikely to outweigh the urgent need for this type of infrastructure. As demonstrated in Section 6 of the Planning Statement above, the key adverse impacts of the Scheme relate to moderate significant effects upon landscape character due to the change in use of the land, localised landscape and visual impacts being significant and local in nature. The Scheme is also considered to cause less than substantial harm to a very limited number of heritage assets. The design development of the Scheme has followed the mitigation hierarchy and all residual effects have been reduced as far as practicable. It is very clear that the extent and nature of the residual impacts do not trigger exceptional circumstances to refuse consent with the presumption firmly engaged in favour of granting
Paragraph 4.2.16	As a result, the Secretary of State will take as the starting point for decision-making that such infrastructure is to be treated as if it has met any tests which are set out within the NPSs, or any other planning policy, which requires a clear outweighing of harm, exceptionality or very special circumstances.	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.2.17	<p>This means that the Secretary of State will take as a starting point that CNP Infrastructure will meet the following, non-exhaustive, list of tests:</p> <ul style="list-style-type: none">-where development within a Green Belt requires very special circumstances to justify development;-where development within or outside a Site of Special Scientific Interest (SSSI) requires the benefits (including need) of the development in the location proposed to clearly outweigh both the likely impact on features of the site that make it a SSSI, and any broader impacts on the national network of SSSIs.-where development in nationally designated landscapes requires exceptional circumstances to be demonstrated; and-where substantial harm to or loss of significance to heritage assets should be exceptional or wholly exceptional.	<p>development consent to deliver CNP infrastructure, as set out in paragraph 4.2.15 of NPS EN-1 which states that “in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts”.</p> <p>The limited and localised impacts resulting from the Scheme do not come anywhere near the tests set out in paragraph 4.2.16, with no impact on nationally designated landscapes or substantial harm or loss to significance of heritage assets. By contrast, the benefits of the Scheme are very substantial (in terms of climate change) and significant (in terms of ecology and nature conservation) at both a national, regional and local level, leading to an overwhelming balance in favour of granting development consent for the Scheme. In terms of S104(7), the benefits of the Scheme clearly and decisively outweigh its limited and localised adverse impacts.</p>
Paragraph 4.3.1	<p>All proposals for projects that are subject to the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) must be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project</p>	<p>An Environmental Statement (ES) [EN010152/APP/6.1] and accompanying Appendices [EN010152/APP/6.3], Figures [EN010152/APP/6.2], Non-technical Summary [EN010152/APP/6.4] and Environmental Mitigation and Commitments Register [EN010152/APP/6.5] have been submitted with this Application. These describe the aspects of the</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.3.5	For the purposes of this NPS and the technology specific NPSs the ES should cover the environmental, social and economic effects arising from pre-construction, construction, operation and decommissioning of the project.	environment likely to be significantly affected by the Scheme. The ES [EN010152/APP/6.1/6.2/6.3] covers the environmental, social and economic effects arising from pre-construction, construction, operation and decommissioning of the Scheme.
Paragraph 4.3.10	The applicant must provide information proportionate to the scale of the project, ensuring the information is sufficient to meet the requirements of the EIA Regulations	The ES [EN010152/APP/6.1/6.2/6.3] meets the requirements of the EIA Regulations, and provides information proportionate to the scale of the Scheme.

Alternatives

Paragraph 4.3.9	As in any planning case, the relevance or otherwise to the decision making process of the existence (or alleged existence) of alternatives to the proposed development is, in the first instance, a matter of law. This NPS does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option from a policy perspective. Although there are specific requirements in relation to compulsory acquisition and habitats sites, the NPS does not change requirements in relation to compulsory acquisitions and habitats sites	There is no general requirement from a policy perspective to consider alternatives or to establish whether the Scheme represents the ‘best option’, however, ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] sets out information in relation to the alternatives considered and design evolution and the site selection process. ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] includes information about the main alternatives studied. Due to the location of the development and limited impacts, there is no potential for impacts to sites protected under the Habitats Directive, and therefore no requirement to consider alternatives due to biodiversity effects (there are no likely
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NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>significant adverse effects on biodiversity). There is also no potential for development within nationally designated landscapes and no requirement to consider alternatives in this regard.</p> <p>This Planning Statement set out how the Scheme accords with policies and legislation where consideration of alternatives are relevant, in the case of the Scheme - flood risk, and explains how the Scheme has taken account of the locational criteria for solar farms that is set out in relevant policies.</p>
Paragraph 4.3.15	Applicants are obliged to include in their ES, information about the reasonable alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility.	There is no general requirement from a policy perspective to consider alternatives or to establish whether the Scheme represents the 'best option', however, ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] sets out information in relation to the alternatives considered and design evolution and the site selection process.
Paragraph 4.3.17	Where there is a policy or legal requirement to consider alternatives, the applicant should describe the alternatives considered in compliance with these requirements.	
Paragraph 4.3.20	The Government has set 13 legally binding targets for England under the Environment Act 2021, covering the areas of: biodiversity; air quality; water; resource efficiency and waste reduction; tree and woodland cover; and Marine Protected Areas. Meeting the legally binding targets will be a shared endeavour that will require a whole of government approach to delivery. The Secretary	ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] includes information about the main alternatives studied. Due to the location of the development and limited impacts, there is no potential for impacts to sites protected under the Habitats Directive, and therefore no requirement to consider alternatives due to biodiversity effects (there are no likely

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>of State have regard to the ambitions, goals and targets set out in the Government’s Environmental Improvement Plan 2023 for improving the natural environment and heritage. This includes having regard to the achievement of statutory targets set under the Environment Act.</p>	<p>significant adverse effects on biodiversity). There is also no potential for development within nationally designated landscapes and no requirement to consider alternatives in this regard.</p>
<p>Paragraph 4.3.22</p>	<p>Given the level and urgency of need for new energy infrastructure, the Secretary of State should, subject to any relevant legal requirements (e.g. under the Habitats Regulations) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives:</p> <ul style="list-style-type: none"> • the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner • only alternatives that can meet the objectives of the proposed development need to be considered 	<p>The No Significant Effects Report [EN010152/APP/7.12] confirms there are no significant effects to biodiversity from construction, operation of decommissioning of the Scheme and therefore no requirement to consider alternatives due to biodiversity effects.</p> <p>This Planning Statement set out how the Scheme accords with policies and legislation where consideration of alternatives are relevant, in the case of the Scheme - flood risk, and explains how the Scheme has taken account of the locational criteria for solar farms that is set out in relevant policies.</p>
<p>Paragraph 4.3.23</p>	<p>The Secretary of State should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security, climate change, and other environmental benefits) in the same timescale as the proposed development</p>	
<p>Paragraph 4.3.24</p>	<p>The Secretary of State should not refuse an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals</p>	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.3.25	Alternatives not among the main alternatives studied by the applicant (as reflected in the ES) should only be considered to the extent that the Secretary of State thinks they are both important and relevant to the decision	
Paragraph 4.3.27	Alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision.	
Paragraph 4.3.28	Alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the Secretary of State's decision.	
Paragraph 4.3.29	It is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made to the Secretary of State (so as to allow appropriate consultation and the development of a suitable evidence base in relation to any alternatives which are particularly relevant). Therefore, where an alternative is first put forward by a third party after an application has been made, the Secretary of State may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the Secretary of State should not necessarily expect the applicant to have assessed it.	
Health		
Paragraph 4.4.2	The direct impacts on health may include • increased traffic	Chapters of the ES [EN010152/APP/6.1] have presented effects of the Scheme which have the

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • air or water pollution • dust, odour • hazardous waste and substances • noise • exposure to radiation, and • increases in pests 	<p>potential to impact on both physical and mental health, but none have identified likely significant adverse effects or cumulative effects during the various phases of the Scheme with respect to the impacts on health identified in paragraph 4.4.2.</p>
Paragraph 4.4.3	<p>New energy infrastructure may also affect the composition and size of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport, or the use of open space for recreation and physical activity.</p>	<p>Impacts will be managed to acceptable levels through the suite of management plans proposed and secured via the Draft DCO [EN010152/APP/3.1].</p> <p>A Community Liaison Group will be also set up and administered (referred to in the Framework CEMP [EN010152/APP/7.7], Framework DEMP [EN010152/APP/7.9], and within the Draft DCO [EN010152/APP/3.1] (as per Requirement 3 in Schedule 2 for construction), with a Community Liaison Officer (or alternative role) to lead discussions with local communities during construction and decommissioning. The Applicant considers that this will facilitate liaison between representatives of people living in the vicinity of the Order limits and other relevant organisations in relation to the construction of the Scheme. This ongoing dialogue regarding the construction and decommissioning phases, is considered an appropriate approach during construction and subsequently decommissioning, allowing</p>
Paragraph 4.4.4	<p>As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on humans, the ES should assess these effects for each element of the project, identifying any potential adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate.</p>	
Paragraph 4.4.5	<p>The impacts of more than one development may affect people simultaneously, so the applicant should consider the cumulative impact on health in the ES where appropriate</p>	
Paragraph 4.4.6	<p>Opportunities should be taken to mitigate indirect impacts, by promoting local improvements to encourage health and wellbeing, this includes potential impacts on vulnerable groups within society, i.e. those groups which</p>	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	may be differentially impacted by a development compared to wider society as a whole.	feedback on impacts of the Scheme and mitigation measures to be considered and acted upon if required.
Paragraph 4.4.7	Generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example for air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008.	<p>A Equalities Impact Assessment [EN010152/APP/7.20] has been prepared and this concludes states no direct discrimination, harassment and victimisation of any protected characteristic groups has been identified as a result of the Scheme. There is potential for the Scheme to result in disadvantage for some protected characteristic groups, such as through increased noise during construction, operation and decommissioning, as well as increased traffic on the local road network during construction and decommissioning. However, such impacts, and others identified, will be suitably mitigated through the measures set out in other documents supporting this DCO Application, such as the Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8], and Framework DEMP [EN010152/APP/7.9].</p>
Paragraph 4.4.8	However, not all potential sources of health impacts will be mitigated in this way and the Secretary of State may want to take account of health concerns when setting requirements relating to a range of impacts such as noise.	
Biodiversity Net Gain		
Paragraph 4.6.1	Environmental net gain is an approach to development that aims to leave the natural environment in a measurably better state than beforehand. Projects should therefore not only avoid, mitigate and compensate harms, following the mitigation hierarchy, but also consider whether there are opportunities for enhancements.	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] confirms that the Scheme avoids and mitigates all significant adverse effects on internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and</p>

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Paragraph 4.6.2

Biodiversity net gain is an essential component of environmental net gain. Projects in England should consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain.

habitats, and veteran trees, during the construction, operation and maintenance, and decommissioning phases. This has been achieved through a considered and iterative design informed by a design team with qualified professional ecologists and includes avoidance, buffers and mitigation measures that will be secured through management plan requirements included in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**.

In addition to protecting existing ecological sites and features, the Applicant has also taken opportunities to provide mitigation and enhancement measures within the Order limits to increase biodiversity and provide overall net gains in habitat. The proposed planting design (as outlined in the **Framework LEMP [EN010152/APP/7.14]**) includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas

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beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (**Error! Reference source not found.**). **Error! Reference source not found.** A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy.

Paragraph 4.6.6

Energy NSIP proposals, whether onshore or offshore, should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity, and the wider environment where possible.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.6.7	In England applicants for onshore elements of any development are encouraged to use the latest version of the biodiversity metric to calculate their biodiversity baseline and present planned biodiversity net gain outcomes. This calculation data should be presented in full as part of their application.	(Error! Reference source not found.).Error! Reference source not found.). A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.
Paragraph 4.6.8	Where possible, this data should be shared, alongside a completed biodiversity metric calculation with the Local Authority and Natural England for discussion at the pre-application stage as it can help to highlight biodiversity and wider environmental issues which may later cause delays if not addressed.	
Paragraph 4.6.10	Biodiversity net gain should be applied after compliance with the mitigation hierarchy and does not change or replace existing environmental obligations, although compliance with those obligations will be relevant to the question of the baseline for assessing net gain and if they deliver an additional enhancement beyond meeting the existing obligation, that enhancement will count towards net gain	
Paragraph 4.6.13	In addition to delivering biodiversity net gain, developments may also deliver wider environmental gains and benefits to communities relevant to the local area, and to national policy priorities, such as <ul style="list-style-type: none"> • reductions in GHG emissions, • reduced flood risk, • improvements to air or water quality, • climate adaptation, • landscape enhancement, 	The Scheme will deliver significant reductions in greenhouse gas emissions over its lifetime, as detailed in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] . As the Scheme contributes to the delivery of low carbon, it will lead to reductions in greenhouse gas emissions and the need for fossils fuels which may result in an indirect improvement in air

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- increased access to natural greenspace or
- The enhancement, expansion or provision of trees and woodlands

The scope of potential gains will be dependent on the type, scale, and location of specific projects. Applicants should look for a holistic approach to delivering wider environmental gains and benefits through the use of nature-based solutions and Green Infrastructure.

quality.

The Scheme's climate adaption measures are set out in **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**, **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** and **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]**, as well as the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]**.

Landscape enhancement measures are set out in the **Framework LEMP [EN010152/APP/7.14]**.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (**Error! Reference source not found.**). **Error! Reference source not found.** A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 4.6.15	Applications for development consent should be accompanied by a statement demonstrating how opportunities for delivering wider environmental net gains have been considered, and where appropriate, incorporated into proposals as part of good design (including any relevant operational aspects) of the project.	<p>The Applicant is committed to achieving the Government’s target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.).Error! Reference source not found.) A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.</p> <p>Opportunities to enhance other environmental gains are outlined by topic in the relevant sections of the ES [EN010152/APP/6.1], the Framework LEMP [EN010152/APP/7.14] and how these have been implemented as part of good design is set out in the Design and Access Statement [EN010152/APP/7.2] and Section 6 of this Planning Statement.</p>
Paragraph 4.6.16	Applicants should make use of available guidance and tools for measuring natural capital assets and ecosystem services, such as the Natural Capital Committee’s ‘How to Do it: natural capital workbook’, the government’s guidance on Enabling a Natural Capital Approach	The Framework LEMP [EN010152/APP/7.14] and the Framework Soil Management Plan [EN010152/APP7.18] set out the management strategy for the Site.

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	(ENCA), and other tools that aim to enable wider benefits for people and nature.	
Paragraph 4.6.17	Where environmental net gain considerations have featured as part of the strategic options appraisal process to select a project, applicants should reference that information to supplement the site-specific details.	ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] details how alternative options for the Scheme were considered during design development.
Paragraph 4.6.1 (Secretary of State decision making)	Although achieving biodiversity net gain is not currently an obligation on applicants, Schedule 15 of the Environment Act 2021 contains provisions which, when commenced, mean the Secretary of State may not grant an application for Development Consent Order unless satisfied that a biodiversity gain objective is met in relation to the onshore112 development in England to which the application relates.	The Applicant is committed to achieving the Government’s target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.). Error! Reference source not found.) A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the
Paragraph 4.6.2 (Secretary of State decision making)	The biodiversity gain objective will be set out in a biodiversity gain statement (as defined under the Environment Act 2021). Normally these statements would be included within an NPS, but the Act allows for the statement to be published separately where a review of an NPS has begun before the provisions are commenced, as is the case with these energy NPSs. Under the provision of the Environment Act 2021, any such separate biodiversity gain statement will be regarded as being contained within these NPSs.	Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.
Paragraph 4.6.3 (Secretary of State decision making)	4.6.3 The Secretary of State should give appropriate weight to environmental and biodiversity net gain, although any weight given to gains provided to meet a legal requirement (for example under the Environment Act 2021) is likely to be limited.	

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Design		
Paragraph 4.7.1	4.7.1 The visual appearance of a building, structure, or piece of infrastructure, and how it relates to the landscape it sits within, is sometimes considered to be the most important factor in good design. But high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure – including fitness for purpose and sustainability, is equally important.	As detailed in the Design and Access Statement [EN010152/APP/7.2] and Section 6.3 of this Planning Statement the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.
Paragraph 4.7.2	Applying “good design” to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It is acknowledged, however that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area	The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the
Paragraph 4.7.3	Good design is also a means by which many policy objectives in the NPSs can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts such as noise. Projects should look to use modern methods of construction and sustainable design practices such as use of sustainable timber and low carbon concrete. Where possible, projects should include the reuse of material.	

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Paragraph 4.7.4

Given the benefits of “good design” in mitigating the adverse impacts of a project, applicants should consider how “good design” can be applied to a project during the early stages of the project lifecycle.

Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

As detailed in the **Design and Access Statement [EN010152/APP/7.2]** and Section 6.3 of this Planning Statement the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.

The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in

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national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

Design principles were developed at an early stage and have guided the Scheme's design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in accordance with the mitigation hierarchy, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. This has included:

- developing a landscape design which carefully integrates the Scheme into the existing landscape pattern as far as practicable by retaining and following existing features, and

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providing new planting, including the filtering and screening of views from visual receptors.

- avoiding and retaining existing ecological features and habitats, and increasing the biodiversity value of the Order limits through embedded and additional mitigation and enhancement measures to provide a minimum of 10% BNG;
- retaining and enhancing PRow through the Solar PV Site; and
- reducing impacts as far as practicable on the setting of designated heritage assets and developing design solutions to enable the preservation in situ of archaeological remains.

Design decisions have been made by the Applicant, responding to the outcomes of statutory consultation and stakeholder engagement, technical considerations, ongoing fieldwork and desk-based analysis. The evolution of the Scheme's design is summarised in **Chapter 3: Alternatives and Design Evolution, ES Volume I [EN010152/APP/6.1]** and within the **Design and Access Statement [EN010152/APP/7.2]**. The landscape and ecological design for the Scheme is further explained in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** and the management of

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**PRoW in the Framework Public Rights of Way
Management Plan EN010152/APP/7.13].**

Paragraph 4.7.5

To ensure good design is embedded within the project development, a project board level design champion could be appointed, and a representative design panel used to maximise the value provided by the infrastructure. Design principles should be established from the outset of the project to guide the development from conception to operation. Applicants should consider how their design principles can be applied post-consent.

As detailed in the **Design and Access Statement [EN010152/APP/7.2]** and Section 6.3 of this Planning Statement the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.

The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to

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its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

The design team has worked collaboratively to provide an integrated and responsive design. The Applicant has sought feedback from a wide range of stakeholders to inform each stage of the design process, and has had regard to these comments, in accordance with requirements of the PA 2008 (Ref. 1) and Ministry of Housing, Communities and Local Government (MHCLG) guidance (Ref. 47Ref. 17). The Applicant has also built relationships with key stakeholders to better understand their views and incorporate design changes where practicable. These stakeholders have included planning, highway, heritage, landscape, ecology and PRow officers at City of Doncaster Council; the Environment Agency; Historic England; Natural England; South Yorkshire Fire Service; the relevant Internal Drainage Boards, elected councillors, MP, Parish Councils' and the Local Community.

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Paragraph 4.7.6

Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, land form and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area. Applicants should also, so far as is possible, seek to embed opportunities for nature inclusive design within the design process.

As detailed in the **Design and Access Statement [EN010152/APP/7.2]** and Section 6.3 of the Planning Statement, the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.

The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and

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technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

The evolution of the Scheme's design is summarised in **Chapter 3: Alternatives and Design Evolution, ES Volume I [EN010152/APP/6.1]** and within the **Design and Access Statement [EN010152/APP/7.2]**. The landscape and ecological design for the Scheme is further explained in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** and the management of PRow in the **Framework Public Rights of Way Management Plan EN010152/APP/7.13]**.

Paragraph 4.7.7

Applicants must demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected.

The evolution of the Scheme's design is summarised in **Chapter 3: Alternatives and Design Evolution, ES Volume I [EN010152/APP/6.1]** and within the **Design and Access Statement [EN010152/APP/7.2]**. The landscape and ecological design for the Scheme is further explained in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** and the management of PRow in the **Framework Public Rights of Way Management Plan EN010152/APP/7.13]**.

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Paragraph 4.7.8	Applicants should consider taking independent professional advice on the design aspects of a proposal. In particular, the Design Council can be asked to provide design review for nationally significant infrastructure projects and applicants are encouraged to use this service. Applicants should also consider any design guidance developed by the local planning authority.	<p>The Scheme’s design, including access design, has been developed by a team of qualified and experienced professionals comprising solar energy engineers; highway engineers; planners; landscape architects; ecologists; heritage specialists; and other environmental professionals.</p> <p>The design team has worked collaboratively to provide an integrated and responsive design. The Applicant has sought feedback from a wide range of stakeholders to inform each stage of the design process, and has had regard to these comments, in accordance with requirements of the PA 2008 (Ref. 1) and Ministry of Housing, Communities and Local Government (MHCLG) guidance (Ref. 47, Ref. 17). The Applicant has also built relationships with key stakeholders to better understand their views and incorporate design changes where practicable. These stakeholders have included planning, highway, heritage, landscape, ecology and PRow officers at City of Doncaster Council; the Environment Agency; Historic England; Natural England; South Yorkshire Fire Service; the relevant Internal Drainage Boards, elected councillors, MP, Parish Councils’ and the Local Community</p>
Paragraph 4.7.10	In the light of the above and given the importance which the Planning Act 2008 places on good design and sustainability, the Secretary of State needs to be satisfied	The location and design of the Scheme is the result of a comprehensive site selection process that was environmental, and planning led to avoid

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	<p>that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable, and adaptable (including taking account of natural hazards such as flooding) as they can be.</p>	<p>and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.</p> <p>ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] explains how the Applicant has undertaken site selection and design in a proportionate way, in accordance with paragraphs 2.10.19 to 2.10.48 of NPS EN-3.</p> <p>ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] and section 6.3 of the Statement of Need [EN010152/APP/7.3] details how the Scheme meets the technical considerations of paragraphs 2.10.49 to 2.10.69 of NPS EN-3.</p> <p>ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] sets out mitigation measures that will ensure that the Scheme is sustainable and adaptable including taking account of natural hazards such as flooding.</p>
<p>Paragraph 4.7.11</p>	<p>In doing so, the Secretary of State should be satisfied that the applicant has considered both functionality (including</p>	<p>While the appearance of solar PV is largely set by its function, the site layout, landscaping and</p>

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	<p>fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located, any potential amenity benefits, and visual impacts on the landscape or seascape) as far as possible.</p>	<p>access design have all been designed to reflect good design principles.</p>
<p>Paragraph 4.7.12</p>	<p>In considering applications, the Secretary of State should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy. Many of the wider impacts of a development, such as landscape and environmental impacts, will be important factors in the design process.</p>	<p>As detailed in the Design and Access Statement [EN010152/APP/7.2] and Section 6.3 of this Planning Statement the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.</p> <p>The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and</p>

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proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

Design principles were developed at an early stage and have guided the Scheme's design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in accordance with the mitigation hierarchy, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. This has included:

- developing a landscape design which carefully integrates the Scheme into the existing landscape pattern as far as practicable by retaining and following existing features, and providing new planting, including the filtering and screening of views from visual receptors.
- avoiding and retaining existing ecological features and habitats, and increasing the

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biodiversity value of the Order limits through embedded and additional mitigation and enhancement measures to provide a minimum of 10% BNG;

- retaining and enhancing PRow through the Solar PV Site; and
- reducing impacts as far as practicable on the setting of designated heritage assets and developing design solutions to enable the preservation in situ of archaeological remains.

Design decisions have been made by the Applicant, responding to the outcomes of statutory consultation and stakeholder engagement, technical considerations, ongoing fieldwork and desk-based analysis. The evolution of the Scheme's design is summarised in **Chapter 3: Alternatives and Design Evolution, ES Volume I [EN010152/APP/6.1]** and within the **Design and Access Statement [EN010152/APP/7.2]**. The landscape and ecological design for the Scheme is further explained in the **Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]** and the management of PRow in the **Framework Public Rights of Way Management Plan EN010152/APP/7.13]**.

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Paragraph 4.10.5	In certain circumstances, measures implemented to ensure a scheme can adapt to climate change may give rise to additional impacts, for example as a result of protecting against flood risk, there may be consequential impacts on coastal change. In preparing measures to support climate change adaptation applicants should take reasonable steps to maximise the use of nature-based solutions alongside other conventional techniques.	Consideration has been given to incorporating nature-based climate change adaption into the Scheme, and proposals for SuDS have been included. Details of climate change adaptation measures are set out in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1], Chapter 8: Ecology
Paragraph 4.10.6	Integrated approaches, such as looking across the water cycle, considering coordinated management of water storage, supply, demand, wastewater, and flood risk can provide further benefits to address multiple infrastructure needs, as well as carbon sequestration benefits.	[EN010152/APP/6.1] and Chapter 9: Water Environment [EN010152/APP/6.1], as well as the Framework CEMP
Paragraph 4.10.7	In addition to avoiding further GHG emissions when compared with more traditional adaptation approaches, nature-based solutions can also result in biodiversity benefits and net gain, as well as increasing absorption of carbon dioxide from the atmosphere	[EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] and the Framework Drainage Strategy, (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]).
Paragraph 4.10.8	New energy infrastructure will typically need to remain operational over many decades, in the face of a changing climate. Consequently, applicants must consider the direct (e.g. site flooding, limited water availability, storms, heatwave and wildfire threats to infrastructure and operations) and indirect (e.g. access roads or other critical dependencies impacted by flooding, storms, heatwaves or wildfires) impacts of climate change when planning the location, design, build, operation and, where appropriate, decommissioning of new energy infrastructure	ES Volume I Chapter 6: Climate Change, Chapter 9: Water Environment, and Chapter 14: Other Environmental Topics [EN010152/APP/6.1] consider the direct and indirect effects of the Scheme on flooding, storms, major accidents and disasters and climate change. They have been considered in the design, construction, operation and decommissioning of the Scheme.

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Paragraph 4.10.9	The ES should set out how the proposal will take account of the projected impacts of climate change, using government guidance and industry standard benchmarks such as the Climate Change Allowances for Flood Risk Assessments, Climate Impacts Tool, and British Standards for climate change adaptation, in accordance with the EIA Regulations.	As outlined in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] , the effects of climate change have been taken into account in the design of the Scheme, and when considering how it will be constructed, operated and decommissioned. Mitigation measures in relation to GHG emissions arising from the Scheme have been embedded within the design and material choices (set out in Section 6.6). They include the use of alternative materials with lower embodied GHG emissions where practicable, low-carbon design specifications such as energy-efficient lighting and liaising with personnel on the potential to implement staff minibuses and car sharing options.
Paragraph 4.10.11	Applicants should demonstrate that proposals have a high level of climate resilience built-in from the outset and should also demonstrate how proposals can be adapted over their predicted lifetimes to remain resilient to a credible maximum climate change scenario. These results should be considered alongside relevant research which is based on the climate change projections.	
Paragraph 4.10.13	The Secretary of State should be satisfied that applicants for new energy infrastructure have taken into account the potential impacts of climate change using the latest UK Climate Projections and associated research and expert guidance (such as the EA's Climate Change Allowances for Flood Risk Assessments or the Welsh Government's Climate change allowances and flood consequence assessments) available at the time the ES was prepared to ensure they have identified appropriate mitigation or adaptation measures. This should cover the estimated lifetime of the new infrastructure, including any decommissioning period.	A Framework CEMP [EN010152/APP/7.7] , Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] will be developed into a detailed CEMP, OEMP and DEMP prior to the commencement of the construction phase as a means to secure the embedded mitigation measures. Further climate change resilience measures embedded into the Scheme, including measures associated with flood risk are included in the Framework CEMP [EN010152/APP/7.7] . Further

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Paragraph 4.11.4	Transmission network infrastructure, and related network reinforcement and upgrade works, associated with nationally significant low carbon infrastructure is considered as CNP Infrastructure. Further guidance can be found in Section 4.2 of this NPS and EN-5.	<p>detail on the specific flood impacts and mitigation measures are discussed in ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1].</p> <p>The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement sets out that the Scheme is considered to be CNP infrastructure.</p>
Paragraph 4.11.12	The Secretary of State should be satisfied that appropriate network connection arrangements are/will be in place for a given project regardless of whether one or multiple (linked) applications are submitted.	<p>As set out in the Grid Connection Statement [EN010152/APP/7.5] there are two options being considered for the grid connection within the DCO:</p> <ul style="list-style-type: none"> • Grid Connection Corridor option – which is the existing contractual connection offer from National Grid and would connect the Scheme to the Existing National Grid Thorpe Marsh Substation via underground 400kV cables; or • Grid Connection Line Drop option – which is a potential amendment to the grid connection offer at a date following DCO determination, at which point National Grid could allow the Scheme to connect into the existing 400kV overhead line running through the Solar PV Site. <p>The Grid Connection Statement [EN010152/APP/7.5] confirms that the Applicant received a grid connection offer from National Grid</p>

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Electricity System Operator Limited (NGESO) to connect the Scheme to the National Electricity Transmission System (NETS) at the Existing National Grid Thorpe Marsh Substation in South Yorkshire. The grid connection offer (a Bilateral Connection Agreement and Construction Agreement) was novated to the Applicant and signed on 3 October 2023. The Bilateral Connection Agreement and Construction Agreement is for the import and export of up to 237.5 MW alternating current.

NGET have confirmed that a bay within the Existing National Grid Thorpe Marsh Substation will be made available. All works to the Existing National Grid Thorpe Marsh Substation to accommodate the Scheme connection for the Grid Connection Corridor option would be undertaken by National Grid and are anticipated to include the installation of infrastructure to facilitate the efficient transmission of power onto the electricity transmission network. All infrastructure within the Existing National Grid Thorpe Marsh Substation would remain under National Grid's control.

Should the Applicant be successful in obtaining development consent for the Scheme, the Applicant will immediately advise National Grid of such consent and request for the connection date to be brought forward, should there be scope to

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do so. This is standard industry practice, if development consent and land are secured. At this stage, the Applicant will also request National Grid to further assess the feasibility of the Grid Connection Line Drop option as the grid connection point for the Scheme. Previous discussions between the parties indicated that such a connection could be viable.

The **Grid Connection Statement [EN010152/APP/7.5]** also confirms that the Applicant has, or will have, the ability to procure the necessary land and rights in order to connect to the National Grid Thorpe Marsh Substation as part of the Grid Connection Corridor option, or the overhead lines tower within the Solar PV Site as part of the Grid Connection Line Drop option; and has sought compulsory acquisition powers to facilitate this if required, as set out in the **Draft DCO [EN010152/APP/3.1]** and the **Statement of Reasons [EN010152/APP/4.1]**.

Paragraph 4.12.9

In considering an application for development consent the Secretary of State should focus on whether the development itself is an acceptable use of the land or sea, and the impact of that use, rather than the control of processes, emissions or discharges themselves.

An **Environmental Statement (ES) [EN010152/APP/6.1]** and accompanying **Appendices [EN010152/APP/6.3]**, **Figures [EN010152/APP/6.2]**, **Non-technical Summary [EN010152/APP/6.4]** and **Environmental Mitigation and Commitments Register [EN010152/APP/6.5]** have been submitted with this DCO Application. These describe the aspects of the

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environment likely to be significantly affected by the Scheme. The **No Significant Effects Report [EN010152/APP/7.12]** demonstrates that the Scheme will not have likely significant effects either alone or in combination with other projects, due to the distance of designated sites and absence of impact pathways. This demonstrates that the land is suitable for the Scheme with the presumption in favour of CNP infrastructure remaining.

ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] outlines pollution controls for the construction and operation phases of the development. A **Framework CEMP [EN010152/APP/7.7]** is also included. The **Consents and Agreement Position Statement [EN010152/APP/3.3]** also sets out other permits and consents that will be required post consent to ensure the implementation of protection measures to protect the water environment. **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]** and the **Design and Access Statement [EN010152/APP/7.2]** explains how the Applicant has undertaken site selection and design in a considered way to minimise environmental effects and again demonstrates that the Scheme is suitable for the land.

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Paragraph 4.12.10	The Secretary of State should work 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. The Secretary of State should act to complement but not seek to duplicate them.	<p>The Scheme demonstrates that through incorporated design and appropriate mitigation the development will not lead to any significant adverse effects on human health, environmental quality and amenity due to the potential pollution of the Scheme.</p> <p>The construction of the Scheme has the potential to impact on human health from increased traffic, air and water pollution, dust, hazardous substances and noise. However, the Framework CEMP [EN010152/APP/7.7] and the Framework CTMP [EN010152/APP/7.17] include measures to mitigate these potential impacts to an acceptable level.</p> <p>To protect human health, mitigation measures have been included as part of the Scheme's construction methodology to minimise adverse effects where practicable, as set out in ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1] and secured in the Framework CEMP [EN010152/APP/7.7] and Framework CTMP [EN010152/APP/7.17]. These include good practice construction methods and the consideration of noise in construction plant selection.</p>

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Measures to mitigate transport, air quality and highway safety effects from increased traffic during construction are detailed in Section 13.6.6 of **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]**. Some measures include (but are not limited to): vehicles using the most direct route to and from the Site, vehicles using 'higher' order roads such as A and B classified Roads, promotion of car sharing and implementation of shuttle bus transfers to reduce trips. These measures will ensure so far as possible that the Scheme does not adversely impact on the local highway network or local air quality through increased transport emissions.

ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] includes an assessment of the potential landscape and visual impacts associated with the construction, operation and decommissioning of the Scheme on local amenity, including an assessment of light pollution impacts. The lighting proposed for the Scheme is minimal. During operation, permanent security lights with motions detectors will be used for security purposes. No areas are proposed to be permanently lit. During construction as far as practicable, works will be limited to daylight hours only, with mobile lighting towers used during winter months where necessary

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With the implementation of mitigation measures significant adverse noise and vibration effects during the construction, operation and decommissioning of the Scheme will be avoided at sensitive receptors. Mitigation measures have been embedded into the Scheme design and construction methodology to minimise adverse effects where practicable, as set out in Section 11.7 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]**.

ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1] concludes that there are no anticipated significant effects on air quality as a result of the Scheme. Mitigation measures following IAQM guidance are discussed and presented in the **Framework CEMP [EN010152/APP/7.7]** and **Framework DEMP [EN010152/APP/7.9]** submitted with the DCO Application.

The **Framework CEMP [EN010152/APP/7.7]** sets out that an Ecological Clerk of Works (ECoW) will provide advice about environmental and ecological issues during construction including for example, pollution, air quality and noise.

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		<p>ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents an assessment of the likely significant effects on the water Environment. Embedded mitigation measures set out in Section 9.8 of ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] result in no significant adverse effects on the pollution of surface water and groundwater features.</p> <p>A Water Framework Directive (WFD) Assessment is presented in ES Volume III Appendix 9-2 [EN010152/APP/6.3] and assesses the impacts of the Scheme on water bodies or protected areas under the WFD.</p> <p>A Water Management Plan (WMP) (which will be produced post consent) will include details for water quality monitoring and pollution prevention and control. The WMP will be a management plan that is brought forward as part of the detailed CEMP to be secured by a requirement of the DCO and to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7].</p>
Paragraph 4.13.5	Applicants should consult with the HSE on matters relating to safety.	The Applicant team has consulted with the HSE.
Paragraph 4.13.6	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.

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Paragraph 4.13.7	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 4.13.8	The Secretary of State should be satisfied that a safety assessment has been prepared, where required, and that the Competent Authority has raised no safety objectives.	The Scheme is not subject to the COMAH regulations, and a safety report is not required.
Paragraph 4.14.5	Applicants must consult the (HSA) and HSE at pre-application stage if the project is likely to need hazardous substances consent. Hazardous substances consents are a part of the planning regime which contributes to public safety.	The Applicant team has consulted with the HSE. The Scheme is not subject to the COMAH regulations.
Common Law Nuisance and Statutory Nuisance		
Paragraph 4.15.5	At the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the EPA 1990 and how they may be mitigated or limited should be identified by the applicant so that appropriate requirements can be included in any subsequent order granting development consent (see Section 5.7 on dust, odour, artificial light etc. and Section 5.12 on noise and vibration).	A Statutory Nuisance Statement [EN010152/APP/7.6] has been included with the application to assess any possible sources of nuisance under section 79(1) of the EPA 1990.
Air Quality and emissions		
Paragraph 5.2.7	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	ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1] assesses the construction and decommissioning impacts of the Scheme on

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	<p>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 (see paragraph 5.2.12 below)</p>	<p>local air quality. Industry good practice measures to control impacts on air quality, in line with guidelines from the Institute of Air Quality Management (IAQM), will be implemented as part of the Scheme and are described in Section 14.1 of ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1].</p>
Paragraph 5.2.8	<p>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.</p>	<p>The implementation of these measures are outlined in the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9], and will be secured through requirement 11 and 18 of Schedule 2 in the draft DCO [EN010152/APP/3.1].</p>
Paragraph 5.2.9	<p>The ES should describe:</p> <ul style="list-style-type: none"> • existing air quality concentrations and the relative change in air quality from existing levels; • any significant air quality, their mitigation action taken 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 emissions, concentration change and absolute concentrations as a result of the proposed project, after mitigation methods have been applied; and any potential eutrophication impacts. 	<p>Taking into account the above mitigation measures, no significant adverse effects were identified as a result of the construction and decommissioning of the Scheme, on human health or sensitive ecosystems, from emissions of air pollutants. Impacts relating to dust soiling from construction dust were also assessed as not significant and this would be the same for decommissioning. Overall, there would be no residual effects on air quality associated with the Scheme</p>
Paragraph 5.2.12	<p>Where a proposed development is likely to lead to a breach of any relevant statutory air quality limits, objectives or targets, or affect the ability of a non-compliant area to achieve compliance within the</p>	<p>The Scheme would not lead to a breach of any relevant statutory air quality thresholds or affect the ability of a non-compliant area to achieve compliance.</p>

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	<p>timescales set out in the most recent relevant air quality plan /strategy at the time of the decision, the applicant should work with the relevant authorities to secure appropriate mitigation measures to ensure that those statutory limits, objectives or targets are not breached.</p>	
<p>Paragraph 5.2.13</p>	<p>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 and should consider relevant advice within Local Air Quality Management guidance and PM2.5 targets guidance.</p>	<p>ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1] concludes that there are no anticipated significant effects on air quality as a result of the Scheme.</p> <p>Mitigation measures following IAQM guidance are discussed and presented in the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9] submitted with the DCO Application.</p>
<p>Paragraph 5.2.15</p>	<p>Many activities involving air emissions are subject to pollution control. The considerations set out in Section 4.12 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 regard to policies set out in the Government’s Environmental Improvement Plan 2023.</p>	
<p>Paragraph 5.2.16</p>	<p>The Secretary of State should give air quality considerations substantial weight where a project would lead to a deterioration in air quality. This could for example include where an area 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,</p>	<p>ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1] concludes that there are no anticipated significant effects on air quality as a result of the Scheme.</p> <p>Mitigation measures following IAQM guidance are discussed and presented in the Framework</p>

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	even if this does not lead to any breaches statutory limits, objectives or targets.	CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9] submitted with the DCO Application.
Paragraph 5.2.17	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.	ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1] concludes that no significant adverse effects were identified as a result of the construction and decommissioning of the Scheme, on human health or sensitive ecosystems, from emissions of air pollutants. Impacts relating to dust soiling from construction dust were also assessed as not significant and this would be the same for decommissioning. Overall, there would be no residual effects on air quality associated with the Scheme.
Paragraph 5.2.18	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.	<p>The Site is located in a rural area but close to a number of settlements and as a consequence there are a large number of high sensitivity receptors in proximity to the site, such as residential properties, that may be impacted by works associated with the Scheme.</p> <p>The implementation of mitigation measures identified within the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9], is expected to prevent any significant impacts on dust deposition and human health from occurring. Residual effects are therefore assessed as being not significant.</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.2.19	In all cases, the Secretary of State must take account of any relevant statutory air quality limits, objectives and targets. If a project will lead to non-compliance with a statutory limit, objective or target the Secretary of State should refuse consent.	The Scheme would not lead to non-compliance with any statutory air quality limit, objective or target.
Paragraph 5.7.5	The applicant should assess the potential for.... emissions of odour, dust..., to have a detrimental impact on amenity, as part of the ES.	<p>As required by NPS EN-1 paragraph 5.7.5, a dust risk assessment was undertaken. The assessment zones are shown in ES Volume II Figure 14-1: Dust Risk Assessment Zones [EN010152/APP/6.2]. The results of the assessment are set out in Section 14.2 of ES Volume I, Chapter 14: Other Environmental Topics [EN010152/APP/6.1].</p> <p>The Scheme will not emit any odour. Construction and decommissioning activities will be undertaken with the use of best practice measures applied, as set out in the Framework CEMP [EN010152/APP/7.7].</p>
Paragraph 5.7.11	A construction management plan may help clarify and secure mitigation	The DCO application includes a Framework CEMP [EN010152/APP/7.7] . To secure embedded mitigation measures and best practice, the Framework CEMP [EN010152/APP/7.7] will be further developed into a detailed CEMP prior to commencement of the construction phase.
Paragraph 5.7.12	<p>The Secretary of State should satisfy itself that:</p> <ul style="list-style-type: none"> • an assessment of the potential for dust, odour, to have a detrimental impact on amenity has been carried out 	As required by NPS EN-1 paragraph 5.7.5, a dust risk assessment was undertaken. The assessment zones are shown in ES Volume II Figure 14-1: Dust Risk Assessment Zones

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • that all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts 	<p>[EN010152/APP/6.2]. The results of the assessment are set out in Section 14.2 of ES Volume I, Chapter 14: Other Environmental Topics [EN010152/APP/6.1].</p> <p>The Scheme will not emit any odour. Construction and decommissioning activities will be undertaken with the use of best practice measures applied, as set out in the Framework CEMP [EN010152/APP/7.7].</p>

Greenhouse Gas Emissions

<p>Paragraph 5.3.4</p>	<p>All proposals for energy infrastructure projects should include a GHG assessment as part of their ES (See Section 4.3). This should include:</p> <ul style="list-style-type: none"> • A whole life GHG assessment showing construction, operational and decommissioning GHG impacts, including impacts from change of land use. • An explanation of the steps that have been taken to drive down the climate change impacts at each of those stages. • Measurement of embodied GHG impact from the construction stage. • How reduction in energy demand and consumption during operation has been prioritised in comparison with other measures. 	<p>A GHG assessment has been undertaken and is presented in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]. It concludes that, following the implementation of good practice measures in the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9], the GHG emissions from the construction and decommissioning phases are likely to have a minor adverse and not significant effect on the climate. Mitigation measures in relation to GHG emissions arising from the Scheme have been embedded within the design and material choices. They include the use of alternative materials with lower embodied GHG emissions where practicable, low-carbon design specifications such as energy-efficient lighting and</p>
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NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • How operational emissions have been reduced as much as possible through the application of best available techniques for that type of technology. • Calculation of operational energy consumption and associated carbon emissions. • Whether and how any residual GHG emissions will be (voluntarily) offset or removed using a recognised framework. • Where there are residual emissions, the level of emissions and the impact of those on national and international efforts to limit climate change, both alone and where relevant in combination with other developments at a regional or national level, or sector level, if sectoral targets are developed 	<p>liaising with personnel on the potential to implement staff minibuses and car sharing options.</p> <p>During its 40-year operation and maintenance phase, the Scheme will have a significant beneficial effect due to its operation and maintenance carbon intensity remaining substantially below that of a gas-fired CCGT generating facility throughout its design life, its role in achieving the rate of transition required by nationally-set policy commitments and supporting the trajectory towards net zero.</p> <p>A Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9] have</p>
Paragraph 5.3.5	A GHG assessment should be used to drive down GHG emissions at every stage of the proposed development and ensure that emissions are minimised as far as possible for the type of technology, taking into account the overall objectives of ensuring our supply of energy always remains secure, reliable and affordable, as we transition to net zero.	been prepared to accompany the DCO application. These identify a range of mitigation measures that have been embedded into the Scheme to limit the GHG impact.
Paragraph 5.3.6	Applicants should look for opportunities within the proposed development to embed nature-based or technological solutions to mitigate or offset the emissions of construction and decommissioning.	
Paragraph 5.3.7	Steps taken to minimise and offset emissions should be set out in a GHG Reduction Strategy, secured under the	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>Development Consent Order. The GHG Reduction Strategy should consider the creation and preservation of carbon stores and sinks including through woodland creation, hedgerow creation and restoration, peatland restoration and through other natural habitats.</p>	
Paragraph 5.3.8	<p>The Secretary of State must be satisfied that the applicant has as far as possible assessed the GHG emissions of all stages of the development.</p>	<p>A GHG assessment has been undertaken and is presented in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]. It concludes that, following the implementation of good practice measures in the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9], the GHG emissions from the construction and decommissioning phases are likely to have a minor adverse and not significant effect on the climate. Mitigation measures in relation to GHG emissions arising from the Scheme have been embedded within the design and material choices. They include the use of alternative materials with lower embodied GHG emissions where practicable, low-carbon design specifications such as energy-efficient lighting and liaising with personnel on the potential to implement staff minibuses and car sharing options.</p>
Paragraph 5.3.9	<p>The Secretary of State should be content that the applicant has taken all reasonable steps to reduce the GHG emissions of the construction and decommissioning stage of the development.</p>	
Paragraph 5.3.10	<p>The Secretary of State should give appropriate weight to projects that embed nature-based or technological processes to mitigate or offset the emissions of construction and decommissioning within the proposed development. However, in light of the vital role energy infrastructure plays in the process of economy wide decarbonisation, the Secretary of State must accept that there are likely to be some residual emissions from construction and decommissioning of energy infrastructure.</p>	<p>During its 40-year operation and maintenance phase, the Scheme will have a significant beneficial effect due to its operation and maintenance carbon intensity remaining substantially below that of a gas-fired CCGT</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Biodiversity and Geological Conservation		
Paragraph 5.4.4	The highest level of biodiversity protection is afforded to sites identified through international conventions. The Habitats Regulations set out sites for which an HRA will assess the implications of a plan or project, including Special Areas of Conservation and Special Protection Areas.	A No Significant Effects Report [EN010152/APP/7.12] has been prepared and submitted with this Application. Natural England were consulted on the scope and extent of the NSER.
Paragraph 5.4.5	As a matter of policy, the following should be given the same protection as sites covered by the Habitats Regulations and an HRA will also be required: (a) potential Special Protection Areas and possible Special Areas of Conservation; (b) listed or proposed Ramsar sites and (c) sites identified, or required, as compensatory measures for adverse effects on any of the other sites covered by this paragraph.	The No Significant Effects Report [EN010152/APP/7.12] concludes that the Scheme will not have a likely significant effect on a European Site alone or in combination with other proposals.
Paragraph 5.4.8	Development on land within or outside a SSSI, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits (including need) of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of SSSIs.	ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out that there are no internationally designated sites for nature conservation within the Solar PV Site or Cable Route Corridor, and the Scheme is not directly connected with or necessary for the conservation management of a European Site and does not risk having a significant adverse effect on a European Site on its own or in combination with other

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>proposals, as set out in the No Significant Effects Report [EN010152/APP/7.12]. There is one SSSI, Shirley Pool, 900m to the south of the Site (from the section of highway within the Order limits at the junction of the A19 and Station Road in the town of Askern) . ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] outlines that the Scheme will not impact on Shirley Pool SSSI.</p>
Paragraph 5.4.12	<p>Sites of regional and local biodiversity and geological interest, which include Regionally Important Geological Sites, Local Nature Reserves and Local Wildlife Sites, are areas of substantive nature conservation value and make an important contribution to ecological networks and nature’s recovery. They can also provide wider benefits including public access (where agreed), climate mitigation and helping to tackle air pollution.</p>	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out that there are four non-statutory Local Wildlife Sites (LWS) located wholly or partially within the Order Limits, one of which, Went Valley LWS, is partly located in the northern part in the Solar PV Site and three of which are located in the Grid Connection Corridor. Wrancarr Drain and Braithwaite Delves LWS, Trumfleet Pit LWS and Trumfleet Pond LWS are all partially located within the Grid Connection Corridor.</p>
Paragraph 5.4.13	<p>National planning policy expects plans to identify and map Local Wildlife sites, and to include policies that not only secure their protection from harm or loss but also help to enhance them and their connection to wider ecological networks.</p>	<p>Mitigation measures detailed within the Framework CEMP [EN010152/APP/7.7] will ensure that there will be no impact on the integrity or functioning of any of the identified LWS.</p>
Paragraph 5.4.15	<p>Ancient woodland is a valuable biodiversity resource both for its diversity of species and for its longevity as woodland. Keeps of Time, the government’s policy for ancient and native trees and woodlands in England sets out the government’s commitment to maintain and</p>	<p>An Arboricultural Impact Assessment (AIA) (Appendix 10-7 of the ES [EN010152/APP/6.3]) has been produced setting out the likely direct and indirect impacts of the Scheme on trees. This concludes that tree loss to facilitate the Scheme</p>

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enhance the existing area of ancient woodland, maintain and enhance the existing resource of known ancient and veteran trees, excluding natural losses from disease and death, and to increase the percentage of ancient woodland in active. Ancient or veteran trees found outside ancient woodland are also particularly valuable. Other types of irreplaceable habitats include blanket bog, limestone pavement, coastal sand dunes, spartina salt marsh swards, mediterranean saltmarsh scrub, and lowland fen.

represents only 1.2% (505,772 m²) of the total tree canopy. All the trees removed are within the Order limits. No veteran or ancient trees are to be removed. The assessment also confirms that trees within Bunfold Shaw ancient woodland (located close to the boundary of the Solar PV Site) are not at risk of direct impact from the Scheme.

Measures to protect retained trees and hedgerows will be put in place and secured through a detailed CEMP, DEMP and LEMP as requirements of Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. These measures will need to be substantially in accordance with the measures set out in the **Framework CEMP [EN010152/APP/7.7]**, **DEMP [EN010152/APP/7.9]** and **Framework LEMP [EN010152/APP/7.14]** to ensure that impacts are minimised and that the Scheme is implemented in accordance with the detailed management plans.

Paragraph 5.4.17

Where the development is subject to EIA the applicant should ensure that the ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance (including those outside England), on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats.

Section 8.8 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** sets out all the designated sites of ecological conservation importance; habitats; protected and notable species; and important ecological features, within an identified Study Area for the Scheme. Section 8.9 of **ES**

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Paragraph 5.4.18	The applicant should provide environmental information proportionate to the infrastructure where EIA is not required to help the Secretary of State consider thoroughly the potential effects of a proposed project.	Volume I Chapter 8: Ecology [EN010152/APP/6.1] goes on to set out the potential impacts on the above receptors during construction, operation and decommissioning of the Scheme. Following the application of mitigation measures set out in Sections 8.10 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] no significant adverse effects are effects have been identified during construction, operation or decommissioning of the Scheme.
Paragraph 5.4.19	The applicant should show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests.	ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out the Scheme avoids and mitigates all significant adverse effects on
Paragraph 5.4.20	Applicants should consider wider ecosystem services and benefits of natural capital when designing enhancement measures.	internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and habitats, and veteran trees, during the construction,
Paragraph 5.4.21	As set out in Section 4.7, the design process should embed opportunities for nature inclusive design. Energy infrastructure projects have the potential to deliver significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains (see Section 4.6 on Environmental and Biodiversity Net Gain). The scope of potential gains will be dependent on the type, scale, and location of each project.	operation and maintenance, and decommissioning phases. This has been achieved through a considered and iterative design informed by a design team with qualified professional ecologists and , which includes embedded avoidance, buffers and mitigation measures that will be secured through management plan requirements included in Schedule 2 of the draft DCO [EN010152/APP/3.1] .

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In addition to protecting existing ecological sites and features, the Applicant has also taken opportunities to provide mitigation and enhancement measures within the Order limits to increase biodiversity and provide overall net gains in habitat. The proposed planting design (as outlined in the **Framework LEMP [EN010152/APP/7.14]**) includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits. The **Framework LEMP [EN010152/APP/7.14]** contains details of all ecological mitigation and enhancements.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity

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Paragraph 5.4.22

The design of Energy NSIP proposals will need to consider the movement of mobile / migratory species such as birds, fish and marine and terrestrial mammals and their potential to interact with infrastructure. As energy infrastructure could occur anywhere within England and Wales, both inland and onshore and offshore, the potential to affect mobile and migratory species across the UK and more widely across Europe (transboundary effects) requires consideration, depending on the location of development.

net gain as set out in the Environment Act 2021 (**Error! Reference source not found.**). **Error! Reference source not found.** A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy

As set out in **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** the Scheme has considered the impact on the movement of mobile / migratory species, such as birds, fish, marine and terrestrial mammals and their potential to interact with infrastructure.

ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out the Scheme avoids and mitigates all significant adverse effects on internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and habitats,

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		during the construction, operation and maintenance, and decommissioning phases. The No Significant Effects Report [EN010152/APP/7.12] concludes that there are no likely significant effects associated with the Scheme (alone or in combination) on internationally designated sites, with no loss of functionally linked land.
FParagraph 5.4.25	The applicant should seek the advice of the appropriate Statutory Nature Conservation Bodies (SNCB) and provide the Secretary of State with such information as the Secretary of State may reasonably require, to determine whether an HRA Appropriate Assessment (AA) is required. Applicants can request and agree 'Evidence Plans' with SNCBs, which is a way to record upfront the information the applicant needs to supply with its application, so that the HRA can be efficiently carried out. If an AA is required, the applicant must provide the Secretary of State with such information as may reasonably be required to enable the Secretary of State to conduct the AA. This should include information on any mitigation measures that are proposed to minimise or avoid likely significant effects	The HRA Stage 1 assessment – Screening for Likely Significant Effects has been undertaken to inform the ES and is included within the DCO within the No Significant Effects Report [EN010152/APP/7.12] . The No Significant Effects Report concludes there will be no significant effects to European Sites either from the construction, operation and decommissioning of the Scheme or in combination with other plans and projects.
Paragraph 5.4.26	If, during the pre-application stage, the SNCB indicate that the proposed development is likely to adversely impact the integrity of habitat sites, the applicant must include with their application such information as may	The No Significant Effects Report [EN010152/APP/7.12] included with the DCO Application has been undertaken to inform the ES. The HRA concludes there will be no significant effects to European Sites either from the

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	reasonably be required to assess a potential derogation under the Habitats Regulations.	construction, operation and decommissioning of the Scheme or in combination with other plans and projects. Therefore, information regarding a derogation under the Habitats Regulations is not required.
Paragraph 5.4.27	If the SNCB gives such an indication at a later stage in the development consent process, the applicant must provide this information as soon as is reasonably possible and before the close of the examination. This information must include assessment of alternative solutions, a case for Imperative Reasons of Overriding Public Interest (IROPI) and appropriate environmental compensation.	Should the SNCB later conclude that adverse effects on the integrity of European Site(s) cannot be avoided or mitigated, appropriate information will be provided to confirm that the Scheme meets the three derogation tests (No Reasonable Alternatives, Imperative Reasons of Overriding Public Interest and adequate compensation).
Paragraph 5.4.28	Provision of such information will not be taken as an acceptance of adverse impacts and if an applicant disputes the likelihood of adverse impacts, it can provide this information as part of its application 'without prejudice' to the Secretary of State's final decision on the impacts of the potential development. If, in these circumstances, an applicant does not supply information required for the assessment of a potential derogation, there will be no expectation that the Secretary of State will allow the applicant the opportunity to provide such information following the examination.	
Paragraph 5.4.29	It is vital that applicants consider the need for compensation as early as possible in the design process as 'retrofitting' compensatory measures will introduce delays and uncertainty to the consenting process.	It is concluded that there will be No Significant Effects to European sites either from the construction, operation and decommissioning of the Scheme or in combination with other plans and projects. Therefore, there are no environmental compensation requirements to be

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Paragraph 5.4.30	Applicants should work closely at an early stage in the pre-application process with SNCB and Defra/Welsh Government to develop a compensation plan for all protected sites adversely affected by the development. Applicants should engage with the relevant Local Planning Authority at an early stage regarding the proposed location of compensatory measures. Applicants should also take account of any strategic plan level compensation plans in developing project level compensation plans.	considered. Natural England have been consulted during the pre-application process and it has been concluded the area does not include any internationally important European designations (Special Areas of Conservation (SAC) and/or Special Protection Areas (SPA)) are triggered by the project, nor those covered by the Ramsar Convention.
Paragraph 5.4.32	Applicants should include measures to mitigate fully the direct and indirect effects of development on ancient woodland, ancient and veteran trees or other irreplaceable habitats during both construction and operational phase.	<p data-bbox="1317 703 2076 1187">An Arboricultural Impact Assessment (AIA) (Appendix 10-7 of the ES [EN010152/APP/6.3]) has been produced setting out the likely direct and indirect impacts of the Scheme on trees. This concludes that tree loss to facilitate the Scheme represents only 1.2% (505,772 m2) of the total tree canopy. All the trees removed are within the Order limits. No veteran or ancient trees are to be removed. The assessment also confirms that trees within Bunfold Shaw ancient woodland (located close to the boundary of the Solar PV Site) are not at risk of direct impact from the Scheme.</p> <p data-bbox="1317 1238 2076 1383">Measures to protect retained trees and hedgerows will be put in place and secured through a detailed CEMP, DEMP and LEMP as requirements of Schedule 2 of the draft DCO</p>

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		<p>[EN010152/APP/3.1]. These measures will need to be substantially in accordance with the measures set out in the Framework CEMP [EN010152/APP/7.7], DEMP [EN010152/APP/7.9] and Framework LEMP [EN010152/APP/7.14] to ensure that impacts are minimised and that the Scheme is implemented in accordance with the detailed management plans.</p>
Paragraph 5.4.33	Applicants should consider any reasonable opportunities to maximise the restoration, creation, and enhancement of wider biodiversity, and the protection and restoration of the ability of habitats to store or sequester carbon as set out under Section 4.6.	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out the Scheme avoids and mitigates all significant adverse effects on internationally, nationally and locally designated biodiversity sites and other important ecological features such as protected species and habitats, and veteran trees, during the construction, operation and maintenance, and decommissioning phases. This has been achieved through a considered and iterative design informed by a design team with qualified professional ecologists and which includes embedded avoidance, buffers and mitigation measures that will be secured through management plan requirements included in Schedule 2 of the draft DCO [EN010152/APP/3.1].</p>
Paragraph 5.4.34	Consideration should be given to improvements to, and impacts on, habitats and species in, around and beyond developments, for wider ecosystem services and natural capital benefits, beyond those under protection and identified as being of principal importance. This may include considerations and opportunities identified through Local Nature Recovery Strategies, and national goals and targets set through the Environment Act 2021 and the Environment Improvement Plan 2023.	<p>In addition to protecting existing ecological sites and features, the Applicant has also taken opportunities to provide mitigation and</p>

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enhancement measures within the Order limits to increase biodiversity and provide overall net gains in habitat. The proposed planting design (as outlined in the **Framework LEMP [EN010152/APP/7.14]**) includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits. The **Framework LEMP [EN010152/APP/7.14]** contains details of all ecological mitigation and enhancements.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (**Error! Reference source not found.**). **Error! Reference source not found.** A **Biodiversity**

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Net Gain (BNG) Assessment

[EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy.

Paragraph 5.4.35

Applicants should include appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the proposed development. In particular, the applicant should demonstrate that:

- during construction, they will seek to ensure that activities will be confined to the minimum areas required for the works
- the timing of construction has been planned to avoid or limit disturbance
 - during construction and operation best practice will be followed to ensure that risk of disturbance or damage to species or habitats is minimised, including as a consequence of transport access arrangements
- habitats will, where practicable, be restored after construction works have finished

Embedded mitigation measures are outlined in Section 8.10 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** and are set out within the **Framework CEMP [EN010152/APP/7.7]**, **Framework OEMP [EN010152/APP/7.8]** and **Framework DEMP [EN010152/APP/7.9]**. These include habitat avoidance, mitigation, creation and replacement measures; mitigation relating to protected and notable species; and standard mitigation measures that comply with industry good practice and environmental legislation.

Production of a final CEMP, OEMP and DEMP will

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	<ul style="list-style-type: none"> opportunities will be taken to enhance existing habitats rather than replace them, and where practicable, create new habitats of value within the site landscaping proposals. Where habitat creation is required as mitigation, compensation, or enhancement the location and quality will be of key importance. In this regard habitat creation should be focused on areas where the most ecological and ecosystems benefits can be realised. Mitigations required as a result of legal protection of habitats or species will be compiled with 	<p>be secured via a requirement within Schedule 2 of the draft DCO [EN010152/APP/3.1]. The Framework CEMP [EN010152/APP/7.7] includes best practice measures to ensure that activities will be confined to the minimum areas required for the works during construction, in accordance with this part of the policy. Section 8.13 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] outlines mitigation measures pertaining to habitat avoidance, creation and replacement measures that comply with this part of the policy.</p>
Paragraph 5.4.36	Applicants should produce and implement a Biodiversity Management Strategy as part of their development proposals. This could include provision for biodiversity awareness training to employees and contractors so as to avoid unnecessary adverse impacts on biodiversity during the construction and operation stages.	<p>The management of biodiversity throughout the life of the Scheme is covered by the Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9].</p> <p>The Framework CEMP [EN010152/APP/7.7] sets out that an Ecological Clerk of Works (ECoW) will provide advice about environmental and ecological issues during construction including for example, management of protected species, surface water management, pollution, air quality and noise.</p>
Paragraph 5.4.39	The government's 25 Year Environment Plan and the Environment Act 2021 mark a step change in ambition for wildlife and the natural environment. The Secretary of State should have regard to the aims and goals of the government's Environmental Improvement Plan and any	<p>ES Volume I Chapter 8: Ecology[EN010152/APP/6.1] has been produced with regard to the aims of the 25 Year Environment Plan, as evidenced by the extensive habitat to be provided pursuant to the Framework</p>

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	relevant measures and targets, including statutory targets set under the Environment Act or elsewhere	<p>LEMP [EN010152/APP/7.14].</p> <p>The Applicant has also considered the Environment Act 2021, as evidenced by the Biodiversity Net Gain Assessment [EN010152/APP/7.11]. It is therefore considered the Scheme is compliant with this policy.</p> <p>As a nationally significant infrastructure project, the Scheme also contributes to climate change mitigation, which in turn is beneficial for biodiversity and geological conservation interests.</p>
Paragraph 5.4.41	The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests. The Secretary of State may take account of any such net benefit in cases where it can be demonstrated.	<p>The Scheme has the potential to deliver biodiversity benefits as a result of its embedded mitigation and enhancement measures, as set out in the Framework LEMP [EN010152/APP/7.14]. In addition, with these measures implemented, there are no significant adverse impacts expected on biodiversity features.</p> <p>The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.). Error! Reference source not found. A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10%</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.</p> <p>The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy.</p>
Paragraph 5.4.42	As a general principle, and subject to the specific policies below, development should, in line with the mitigation hierarchy, aim to avoid significant harm to biodiversity and geological conservation interests, including through consideration of reasonable alternatives (as set out in Section 4.3 above). Where significant harm cannot be avoided, impacts should be mitigated and as a last resort, appropriate compensation measures should be sought.	As set out in ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] with the application of mitigation measures, no significant adverse effects have been identified on designated ecological sites, habitats or protected species during construction, operation or decommissioning of the Scheme.
Paragraph 5.4.43	If significant harm to biodiversity resulting from a development cannot be avoided (for example through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then the Secretary of State will give significant weight to any residual harm.	<p>Embedded mitigation measures are outlined in Section 8.10 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] and additional mitigation measures are set out in Section 8.13 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1].</p> <p>These measures are also set out within the Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9]. These include habitat avoidance; creation and</p>

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		<p>replacement measures; mitigation relating to protected and notable species; and standard mitigation measures that comply with industry good practice and environmental legislation.</p> <p>Production of a final CEMP, OEMP and DEMP will be secured via a requirement within Schedule 2 of the draft DCO [EN010152/APP/3.1]..</p>
Paragraph 5.4.44	<p>The Secretary of State should consider what appropriate requirements should be attached to any consent and/or in any planning obligations entered into, in order to ensure that any mitigation or biodiversity net gain measures, if offered, are delivered and maintained. Any habitat creation or enhancement delivered including linkages with existing habitats for compensation or biodiversity net gain should generally be maintained for a minimum period of 30 years, or for the lifetime of the project, if longer.</p>	<p>The Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] set out measures to mitigate and achieve biodiversity net gain. These will be developed into detailed documents and secured by a requirement within Schedule 2 of the draft DCO [EN010152/APP/3.1]</p>
Paragraph 5.4.46	<p>Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. The Secretary of State should give appropriate weight to environmental and biodiversity enhancements, although any weight given to gains provided to meet a legal requirement (for example under the Environment Act 2021) is likely to be limited.</p>	<p>As detailed in the Design and Access Statement [EN010152/APP/7.2] and Section 6.3 of the Planning Statement the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity while being sensitive to the local context and surrounding area, avoiding and minimising impacts on the environment as far as practicable. The design process and principles are described in the Design and Access Statement</p>
Paragraph 5.4.47	<p>When considering proposals, the Secretary of State should maximise such reasonable opportunities in and around developments, using requirements or planning obligations where appropriate. This can help towards</p>	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>delivering biodiversity net gain as part of or in addition to the approach set out at Section 4.6.</p>	<p>[EN010152/APP/7.2] and Outline Design Parameters Statement [EN010152/APP/7.4].</p> <p>The Applicant is committed to achieving the Government’s target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.). Error! Reference source not found. A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.</p> <p>The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy.</p>
<p>Paragraph 5.4.48</p>	<p>In taking decisions, the Secretary of State should ensure that appropriate weight is attached to designated sites of international, national, and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment.</p>	<p>Appropriate weight has been attached designated sites of international, national and local importance; protected species; habitats and other species of principal importance for the conservation of biodiversity; and to biodiversity and geological interests within the wider environment, with an assessment of the Scheme’s</p>

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Paragraph 5.4.49

The Secretary of State must consider whether the project is likely to have a significant effect on a protected site which is part of the National Site Network (an habitat site), a protected marine site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects.

impact on these set out in **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]**.

The **No Significant Effects Report [EN010152/APP/7.12]** explains that whilst the 2019 Regulations make changes to the Habitats regime and terminology (e.g., by introducing the term ‘national network site’) the HRA continues to use the term ‘European Sites’ to refer to all former Natura 2000 sites in line with current standard practice (comprising Special Areas of Conservation [SAC], Special Protection Areas [SPA]) potentially affected by the Scheme.

The **No Significant Effects Report [EN010152/APP/7.12]** concludes there will be no significant effects to European Sites either from the construction, operation and decommissioning of the Scheme or in combination with other plans and projects. Therefore, information regarding a derogation under the Habitats Regulations is not required.

Paragraph 5.4.50

The Secretary of State should use requirements and/or planning obligations to mitigate the harmful aspects of the development and, where possible, to ensure the conservation and enhancement of the site’s biodiversity or geological interest.

ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] details how the Scheme has sought to avoid significant harm to biodiversity, and taken advantage of opportunities to conserve and enhance biodiversity. Section 8.10 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** outlines the embedded

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Paragraph 5.4.52	The Secretary of State should give due consideration to regional or local designations. However, given the need for new nationally significant infrastructure, these designations should not be used in themselves to refuse development consent.	mitigation measures which aim to conserve and enhance biodiversity conservation interests. Section 8.11 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] provides an assessment of likely impacts and effects. It concludes that there are no potential significant adverse effects as a result of the construction or operation of the Scheme on any sites of regional and local biodiversity or geological interest.
Paragraph 5.4.53	The Secretary of State should not grant development consent for any development that would result in the loss or deterioration of any irreplaceable habitats, including ancient woodland, and ancient and veteran trees unless there are wholly exceptional reasons and a suitable compensation strategy exists.	An Arboricultural Impact Assessment (AIA) (Appendix 10-7 of the ES [EN010152/APP/6.3]) has been produced setting out the likely direct and indirect impacts of the Scheme on trees. This concludes that tree loss to facilitate the Scheme represents only 1.2% (505,772 m ²) of the total tree canopy. All the trees removed are within the Order limits. No veteran or ancient trees are to be removed. The assessment also confirms that trees within Bunfold Shaw ancient woodland (located close to the boundary of the Solar PV Site) are not at risk of direct impact from the Scheme. Measures to protect retained trees and hedgerows will be put in place and secured through a detailed CEMP, DEMP and LEMP as requirements of Schedule 2 of the draft DCO [EN010152/APP/3.1] . These measures will need

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.4.54	The Secretary of State should ensure that species and habitats identified as being of importance for the conservation of biodiversity are protected from the adverse effects of development by using requirements, planning obligations, or licence conditions where appropriate.	to be substantially in accordance with the measures set out in the Framework CEMP [EN010152/APP/7.7] , DEMP [EN010152/APP/7.9] and Framework LEMP [EN010152/APP/7.14] to ensure that impacts are minimised and that the Scheme is implemented in accordance with the detailed management plans.
Paragraph 5.4.55	The Secretary of State should refuse consent where harm to a protected species and relevant habitats would result, unless there is an overriding public interest and other relevant legal tests are met. In this context the Secretary of State should give substantial weight to any such harm to the detriment of biodiversity features of national or regional importance or the climate resilience and the capacity of habitats to store carbon, which it considers may result from a proposed development	<p>There would be no residual significant adverse effects on any species and habitats as a result of the Scheme</p> <p>There would be no residual significant adverse effects on any species and habitats as a result of the Scheme.</p> <p>The Applicant is committed to achieving the Government’s target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.).Error! Reference source not found.) A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.</p> <p>The Scheme has therefore taken advantage of opportunities to conserve and enhance biodiversity and accords with policy.</p>
Aviation		
Paragraph 5.5.5	UK airspace is important for both civilian and military aviation interests. Its capabilities are not adversely affected by new energy infrastructure. Likewise, it is essential that aerodromes, aircraft, air systems and airspace operators work collaboratively with energy infrastructure developers essential for net zero.	The Applicant consulted with the MoD, CAA and NATS during the statutory consultation for the Scheme. No adverse comments were received with respect to the Scheme and its potential impact upon aviation interests. The Consultation Report [EN010152/APP/5.1] sets out how regard has been had to responses received at Appendix O of the Consultation Report Appendices [EN010152/APP/5.2] .
Paragraph 5.5.37	Where the proposed development may affect the performance of civil or military aviation CNS, meteorological radars and/or other defence assets an assessment of potential effects should be set out in the ES (see Section 4.3).	Section 14.3 of ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1] and supporting ES Volume III Appendix 14-2: Glint and Glare Assessment [EN010152/APP/6.3] provides an assessment of the potential effects of the Scheme on aviation.
Paragraph 5.5.41	<p>In addition, consideration of developments near aerodromes should take into account the following– factors</p> <ul style="list-style-type: none"> - Bird Strike Risk - Aircraft are vulnerable to wildlife strike, in particular bird strike. Birds and other 	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] takes into account the impacts to birds.</p> <p>The Scheme does not propose significant</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>wildlife may be attracted to the vicinity of an aerodrome by various types of development, for example, large buildings with perching/roosting opportunities for birds. It is therefore important that infrastructure, buildings and other elements from energy installations, as well as environmental mitigation are designed in such a way so as not to increase the bird strike risk to the airport for developments within 13km (this can vary)200.</p> <ul style="list-style-type: none"> - Building Induced Turbulence - If a significant building or structure is proposed close to the airport/runways, there is potential for building induced turbulence/wind shear to be created which has the potential to impact on aircraft on take-off and landing. Studies may be required to identify the extent of any turbulence resulting from the energy infrastructure. –Thermal Plume Turbulence - This is caused under certain conditions by the release of hot air from a power plant equipped with a dry cooling system. The plumes generated by these facilities have the potential to create invisible turbulence that can affect the manoeuvrability of aircraft. 	<p>buildings or structures, therefore turbulence has not been assessed.</p> <p>Thermal Plume Turbulence is not considered relevant as the Scheme does not propose dry cooling systems.</p>
Paragraph 5.5.49	The Secretary of State should be satisfied that the effects on meteorological radars, civil and military aerodromes, aviation technical sites and other defence assets or operations have been addressed by the applicant and that any necessary assessment of the proposal on aviation, NSWWS or defence interests has been carried out.	ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1] and supporting ES Volume III Appendix 14-2: Glint and Glare Assessment [EN010152/APP/6.3] provides an assessment of the potential effects of the Scheme on aviation.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.5.50	In particular, the Secretary of State should be satisfied that the proposal has been designed, where possible, to minimise adverse impacts on the operation and safety of aerodromes and that realistically achievable mitigation is carried out on existing surveillance systems such as radar / tracking technologies. It is incumbent on Operators of aerodromes to regularly review the possibility of agreeing to make reasonable changes to operational procedures	<p>The Applicant has consulted with the MOD and NATS.</p> <p>ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1] and supporting ES Volume III Appendix 14-2: Glint and Glare Assessment [EN/010152/APP/6.3] provide an assessment of glint and glare effects of the Scheme. In accordance with NPS EN-3 (Error! Reference source not found.), Error! Reference source not found.), the assessment considers effects upon aviation activity, based on the visibility of PV panels from receptors, their angles using geometric calculations and amount of sunlight.</p> <p>The assessment predicts that the Scheme will result in minor (not significant) impacts at one runway approach path, whilst there will be no impacts on remaining aviation receptors.</p>
Paragraph 5.5.55	Lighting must also be designed in such a way as to ensure that there is no glare or dazzle to pilots and/or ATC, aerodrome ground lighting is not obscured and that any lighting does not diminish the effectiveness of aeronautical ground lighting and cannot be confused with aeronautical lighting. Lighting may also need to be compatible with night vision devices for military low flying purposes.	<p>The Framework CEMPEN010152/APP/7.7] outlines the lighting strategy, with the detailed construction lighting design to be secured by requirement 12 in Schedule 2 of the Draft DCO [EN010152/APP/3.1]. The lighting strategy for the operation and maintenance phase is set out in the Framework OEMP [EN010152/APP/7.8], which includes details on lighting design. During operation and maintenance, the Solar PV Site would not require artificial lighting other than</p>

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during temporary periods of maintenance/repair. Task specific and fixed 'general' lighting will be used at the On-Site Substation, BESS Area and at the Operations and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions.

ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1] and supporting ES Volume III Appendix 14-2: Glint and Glare Assessment [EN/010152/APP/6.3] provide an assessment of glint and glare effects of the Scheme. In accordance with NPS EN-3 (Error! Reference source not found.), Error! Reference source not found.), the assessment considers effects upon aviation activity, based on the visibility of PV panels from receptors, their angles using geometric calculations and amount of sunlight.

The assessment predicts that the Scheme will result in minor (not significant) impacts at one runway approach path, whilst there will be no impacts on remaining aviation receptors.

Dust, Odour, Artificial Light, Smoke, Steam, and Insect Infestation

Paragraph 5.7.5

The applicant should assess the potential for insect infestation and emissions of odour, dust, steam, smoke, and artificial light to have a detrimental impact on amenity, as part of the ES.

ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1] provides an assessment of the likely effects on air quality as a result of the Scheme. The assessment relates to

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.7.6	<p>In particular, the assessment provided by the applicant should describe:</p> <ul style="list-style-type: none"> • the type, quantity and timing of emissions • aspects of the development which may give rise to emissions • premises or locations that may be affected by the emissions • effects of the emission on identified premises or locations • measures to be employed in preventing or mitigating the emissions 	<p>dust generation, as well as additional road traffic and plant emissions during the construction and decommissioning phases. The impacts of the Scheme during the operation and maintenance phase were scoped out of the assessment, as no significant adverse effects would likely occur, due to the small magnitude of road traffic during this phase and the limited use of the emergency generator at the On-Site Substation.</p>
Paragraph 5.7.12	<p>The Secretary of State should satisfy itself that:</p> <ul style="list-style-type: none"> • an assessment of the potential for artificial light, dust, odour, smoke, steam and insect infestation to have a detrimental impact on amenity has been carried out • that all reasonable steps have been taken, and will be taken, to minimise any such detrimental impacts 	<p>Industry good practice measures to control impacts on air quality, in line with guidelines from the Institute of Air Quality Management (IAQM), will be implemented as part of the Scheme and are described in Section 14.1 of ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1]. The implementation of these measures are outlined in the Framework Construction Environmental Plan [EN010152/APP/7.7] and Framework Decommissioning Environmental Management Plan [EN010152/APP/7.9], and will be secured through requirement 11 and 18 of Schedule 2 in the draft DCO [EN010152/APP/3.1].</p> <p>Taking into account the above mitigation measures, no significant adverse effects were identified as a result of the construction and decommissioning of the Scheme, on human health or sensitive ecosystems, from emissions of</p>

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air pollutants. Impacts relating to dust soiling from construction dust were also assessed as not significant and this would be the same for decommissioning. Overall, there would be no residual effects on air quality associated with the Scheme.

The **Framework CEMPEN010152/APP/7.7]** outlines the lighting strategy, with the detailed construction lighting design to be secured by requirement 12 in Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**. The lighting strategy for the operation and maintenance phase is set out in the **Framework OEMP [EN010152/APP/7.8]**, which includes details on lighting design. During operation and maintenance, the Solar PV Site would not require artificial lighting other than during temporary periods of maintenance/repair. Task specific and fixed 'general' lighting will be used at the On-Site Substation, BESS Area and at the Operations and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions. The impacts of lighting are assessed in the relevant chapters of the ES (landscape, biodiversity, socio-economics and human health) and no significant adverse effects are anticipated as a result of lighting.

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The Scheme is not expected to result in an increased risk of insect infestation and will not emit any odour. Construction and decommissioning activities will not include burning materials (as set out in the **Framework CEMP[EN010152/APP/7.7]**). For these reasons, smoke, odour and insect infestation risk have not been assessed in the ES.

Flood Risk

Paragraph 5.8.7

Where new energy infrastructure is, exceptionally, necessary in flood risk areas (for example where there are no reasonably available sites in areas at lower risk), policy aims to make it safe for its lifetime without increasing flood risk elsewhere and, where possible, by reducing flood risk overall. It should also be designed and constructed to remain operational in times of flood.

The FRA (**ES Volume III Appendix 9-3 [EN010152/APP/6.3]**) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the **Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3])** demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance

A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.8.9	<p>If, following application of the Sequential Test, it is not possible, (taking into account wider sustainable development objectives), for the project to be located in areas of lower flood risk the Exception Test can be applied, as defined in https://www.gov.uk/guidance/flood-risk-and-coastal-change#table2. The test provides a method of allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available</p>	<p>demonstrates that the Sequential Test has been met with respect to the Solar PV Site. The Sequential Test has been applied to the Grid Connection Corridor, confirming that there are no reasonably available alternative locations for this. The Exception Test has been passed in relation to the Solar PV Site and Grid Connection Corridor owing to the wider sustainability benefits that the Scheme will deliver and that it will remain safe throughout its lifetime without increasing flood risk elsewhere</p>
Paragraph 5.8.10	<p>The Exception Test is only appropriate for use where the Sequential Test alone cannot deliver an acceptable site. It would only be appropriate to move onto the Exception Test when the Sequential Test has identified reasonably available, lower risk sites appropriate for the proposed development where, accounting for wider sustainable development objectives, application of relevant policies would provide a clear reason for refusing development in any alternative locations identified. Examples could</p>	<p>As a result of areas of the Solar PV Site and Grid Connection Corridor being located within Flood Zone 3, it is necessary to apply the Exception Test in accordance with NPS EN-1 (Error! Reference source not found.).Error! Reference source not found.)</p> <p>In response to meeting part (a) of the Exception Test the need for the Scheme is explained in the Statement of Need [EN010152/APP/7.3] and summarised in Section 5 of this Planning Statement. Through the generation of low carbon electricity, the Scheme will contribute to the urgent need to decarbonise electricity generation in the UK as required by the latest national renewable energy policy and will contribute to the UK's legally binding climate change targets.</p>

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Paragraph 5.8.11	<p>include alternative site(s) that are subject to national designations such as landscape, heritage and nature conservation designations, for example Areas of Outstanding Natural Beauty (AONBs), SSSIs and World Heritage Sites (WHS) which would not usually be considered appropriate</p> <hr/> <p>Both elements of the Exception Test will have to be satisfied for development to be consented. To pass the Exception Test it should be demonstrated that:</p> <ul style="list-style-type: none"> • The project would provide wider sustainability benefits to the community that outweigh flood risk; and • the project will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible will reduce flood risk overall. 	<p>Specifically, it will deliver a significant amount of low carbon energy delivering the benefits to the energy system set out in NPS EN-1. The Scheme will have both a national, and global significance, through its contribution to decarbonisation of the UK's electricity generation. The use of the BESS provides additional carbon saving opportunities as explained in the Statement of Need [EN010152/APP/7.3] and ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1].</p> <p>Section 5 of this Planning Statement also explains the ecological enhancements of the Scheme's design set out in the LEMP [EN010152/APP/7.14]; and benefits of the Scheme from employment generation and GVA contribution during construction. Similar economic benefits are also anticipated for the decommissioning phase.</p> <p>In summary, it is considered that the Scheme will provide wider sustainability benefits to the community, including job creation in the local area during construction and decommissioning, that outweigh its impacts on flood risk in accordance with NPS EN-1. The Scheme therefore satisfied part (a) of the Exception Test.</p>

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In response to meeting part (b) of the Exception Test, this is addressed through the site-specific FRA set out in **ES Volume III Appendix 9-3 [EN010152/APP/6.3]**, which demonstrates that with mitigation the Scheme will be safe from flooding throughout its lifetime without increasing flood risk elsewhere. Therefore, the Scheme satisfies part (b) of the Exception Test.

As the Scheme satisfies both elements of the Exception Test, development of solar infrastructure within Flood Zones 2 and 3 can proceed in accordance with the policy framework.

Paragraph 5.8.12

Development should be designed to ensure there is no increase in flood risk elsewhere, accounting for the predicted impacts of climate change throughout the lifetime of the development. There should be no net loss of floodplain storage and any deflection or constriction of flood flow routes should be safely managed within the site. Mitigation measures should make as much use as possible of natural flood management techniques.

The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the **Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3])** demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance

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A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This demonstrates that the Sequential Test has been met with respect to the Solar PV Site. The Sequential Test has been applied to the Grid Connection Corridor, confirming that there are no reasonably available alternative locations for this. The Exception Test has been passed in relation to the Solar PV Site and Grid Connection Corridor owing to the wider sustainability benefits that the Scheme will deliver and that it will remain safe throughout its lifetime without increasing flood risk elsewhere.

There will also be no loss of floodplain storage, impedance of water flows or increase to flood risk elsewhere given the Grid Connection Cables will be underground.

Paragraph 5.8.13

A site-specific flood risk assessment should be provided for all energy projects in Flood Zones 2 and 3 in England or Zones B and C in Wales. In Flood Zone 1 in England or Zone A in Wales, an assessment should accompany all proposals involving:

- sites of 1 hectare or more
- land which has been identified by the EA or NRW as having critical drainage problems

ES Volume III Appendix 9-3: Flood Risk Assessment (FRA) [EN010152/APP/6.3] provides an assessment of flood risk to and from the Scheme from all sources of flooding taking account of climate change. The **FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3])** demonstrates how residual flood risk will be managed during construction, operation and

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • land identified (for example in a local authority strategic flood risk assessment) as being at increased flood risk in future • land that may be subject to other sources of flooding (for example surface water) • where the EA or NRW, Lead Local Flood Authority, Internal Drainage Board or other body have indicated that there may be drainage problems. 	decommissioning of the Scheme and how the requirements of the Sequential Test and Exceptions Test are satisfied.
Paragraph 5.8.14	This assessment should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.	
Paragraph 5.8.15	<p>The minimum requirements for Flood Risk Assessments (FRA) are that they should:</p> <ul style="list-style-type: none"> • be proportionate to the risk and appropriate to the scale, nature and location of the project; • consider the risk of flooding arising from the project in addition to the risk of flooding to the project; • take the impacts of climate change into account, across a range of climate scenarios, clearly stating the development lifetime over which the assessment has been made • be undertaken by competent people, as early as possible in the process of preparing the proposal; • consider both the potential adverse and beneficial effects of flood risk management infrastructure, including raised defences, flow channels, flood storage areas and other artificial features, together with the consequences of their failure and exceedance; 	<p>ES Volume III Appendix 9-3: FRA [EN010152/APP/6.3] provides an assessment of flood risk to and from the Scheme from all sources of flooding, taking climate change into account. The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) demonstrates how residual flood risk will be managed during construction, operation and decommissioning of the Scheme and sets out how the Sequential Test has been applied and Exceptions Test satisfied.</p> <p>The FRA meets all the requirements set out within this policy.</p>

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- consider the vulnerability of those using the site, including arrangements for safe access and escape;
- consider and quantify the different types of flooding (whether from natural and human sources and including joint and cumulative effects) and include information on flood likelihood, speed-of-onset, depth, velocity, hazard and duration;
- identify and secure opportunities to reduce the causes and impacts of flooding overall, making as much use as possible of natural flood management techniques as part of an integrated approach to flood risk management;
- consider the effects of a range of flooding events including extreme events on people, property, the natural and historic environment and river and coastal processes;
- include the assessment of the remaining (known as 'residual') risk after risk reduction measures have been taken into account and demonstrate that these risks can be safely managed, ensuring people will not be exposed to hazardous flooding;
- consider how the ability of water to soak into the ground may change with development, along with how the proposed layout of the project may affect drainage systems. Infation should include:

Describe the existing surface water drainage arrangements for the site

ii. Set out (approximately) the existing rates and volumes of surface water run-off generated by the site. Detail the proposals for restricting discharge rates

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- iii. Set out proposals for managing and discharging surface water from the site using sustainable drainage systems and accounting for the predicted impacts of climate change. If sustainable drainage systems have been rejected, present clear evidence of why their inclusion would be inappropriate
 - iv. Demonstrate how the hierarchy of drainage options has been followed.
 - v. Explain and justify why the types of SuDS217 and method of discharge have been selected and why they are considered appropriate.
 - vi. Explain how sustainable drainage systems have been integrated with other aspects of the development such as open space or green infrastructure, so as to ensure an efficient use of the site
 - vii. Describe the multifunctional benefits the sustainable drainage system will provide
 - viii. Set out which opportunities to reduce the causes and impacts of flooding have been identified and included as part of the proposed sustainable drainage system
 - ix. Explain how run-off from the completed development will be prevented from causing an impact elsewhere
 - x. Explain how the sustainable drainage system been designed to facilitate maintenance and, where relevant, adoption. Set out plans for ensuring an acceptable standard of operation and maintenance throughout the lifetime of the development
- detail those measures that will be included to ensure the development will be safe and remain operational during a

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	flooding event throughout the development’s lifetime without increasing flood risk elsewhere; <ul style="list-style-type: none"> • identify and secure opportunities to reduce the causes and impacts of flooding overall during the period of construction; and • be supported by appropriate data and information, including historical information on previous events 	
Paragraph 5.8.17	Development (including construction works) will need to account for any existing watercourses and flood and coastal erosion risk management structures or features, or any land likely to be needed for future structures or features so as to ensure: <ul style="list-style-type: none"> • Access, clearances and sufficient land are retained to enable their maintenance, repair, operation, and replacement, as necessary • Their condition or structural integrity is not reduced 	<p>ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents the assessment of the likely significant effects on surface water bodies (e.g. rivers, streams, ditches, canals, lakes and ponds) including water quality and hydromorphology, flood risk and drainage. The Framework CEMP [EN010152/APP/7.3], OEMP [EN010152/APP/7.8] and DEMP [EN010152/APP/7.9] include measures to protect watercourses during construction and decommissioning.</p> <p>A Framework Drainage Strategy, (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]) has been prepared detailing appropriate surface water drainage management through SuDS proposed as part of the Scheme to avoid increased flood risk from surface water and management of flow paths to ensure the Scheme remains safe throughout its lifetime. A detailed Drainage Strategy which must be in substantial accordance with the Framework</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.8.18	Applicants for projects which may be affected by, or may add to, flood risk should arrange pre-application discussions before the official pre-application stage of the NSIP process with the EA or NRW, and, where relevant, other bodies such as Lead Local Flood Authorities, Internal Drainage Boards, sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators.	Drainage Strategy is secured through requirement 9 of the Draft DCO [EN010152/APP/3.1] .
Paragraph 5.8.19	Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRA, and identify the information that will be required by the Secretary of State to reach a decision on the application when it is submitted. The Secretary of State should advise applicants to undertake these steps where they appear necessary but have not yet been addressed.	A FRA is provided at ES Volume III Appendix 9-3 [EN010152/APP/6.3] . The preparation of the FRA, and the ES has considered advice and taken account of consultation with key bodies, including the Environment Agency (EA), the Lead Local Flood Authorities (LLFAs) and the Internal Drainage Boards (IDBs). Listed below are the statutory consultees and stakeholders that have provided comment on the water environment: <ul style="list-style-type: none"> • Yorkshire and Humber Drainage Board • Moss and District Parish Council • City of Doncaster Council • The Environment Agency
Paragraph 5.8.20	If the EA, NRW or another flood risk management authority has reasonable concerns about the proposal on flood risk grounds, the applicant should discuss these concerns with the EA or NRW and take all reasonable steps to agree ways in which the proposal might be amended, or additional information provided, which would satisfy the authority's concerns.	A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This demonstrates that the Sequential Test has been
Paragraph 5.8.21	The Sequential Test ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. Where it is not possible to locate development in low-risk areas, the	A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This demonstrates that the Sequential Test has been

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	Sequential Test should go on to compare reasonably available sites with medium risk areas and then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas	met with respect to the Solar PV Site. The Sequential Test has been applied to the Grid Connection Corridor in relation to construction, confirming that there are no reasonably available alternative locations for this. The Exception Test has been passed in relation to the Solar PV Site and Grid Connection Corridor owing to the wider sustainability benefits that the Scheme will deliver and that it will remain safe throughout its lifetime without increasing flood risk elsewhere.
Paragraph 5.8.23	Consideration of alternative sites should take account of the policy on alternatives set out in Section 4.3 above. All projects should apply the Sequential Test to locating development within the site	
Paragraph 5.8.24	To satisfactorily manage flood risk, arrangements are required to manage surface water and the impact of the natural water cycle on people and property.	<p>The proposed drainage design set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) demonstrates that sustainable drainage systems have been designed into the Scheme to manage surface water and will be maintained by the Applicant, or another private operator in accordance.</p> <p>The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change.</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.8.25	<p>In this NPS, the term SuDS refers to the whole range of sustainable approaches to surface water drainage management including, where appropriate:</p> <ul style="list-style-type: none"> a. source control measures including rainwater recycling and drainage b. infiltration devices to allow water to soak into the ground, that can include individual soakaways and communal facilities c. filter strips and swales, which are vegetated features that hold and drain water downhill mimicking natural drainage patterns d. filter drains and porous pavements to allow rainwater and run-off to infiltrate into permeable material below ground and provide storage if needed e. basins, ponds and tanks to hold excess water after rain and allow controlled discharge that avoids flooding <p>flood routes to carry and direct excess water through developments to minimise the impact of severe rainfall flooding</p>	<p>The proposed drainage design set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance.</p>
Paragraph 5.8.26	<p>Site layout and surface water drainage systems should cope with events that exceed the design capacity of the system, so that excess water can be safely stored on or conveyed from the site without adverse impacts</p>	<p>The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.8.27	The surface water drainage arrangements for any project should, accounting for the predicted impacts of climate change throughout the development's lifetime, be such that the volumes and peak flow rates of surface water leaving the site are no greater than the rates prior to the proposed project, unless specific off-site arrangements are made and result in the same net effect.	of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance.
Paragraph 5.8.28	It may be necessary to provide surface water storage and infiltration to limit and reduce both the peak rate of discharge from the site and the total volume discharged from the site. There may be circumstances where it is appropriate for infiltration facilities or attenuation storage to be provided outside the project site, if necessary, through the use of a planning obligation.	<p>The FRA ES Volume III Appendix 9-3 [EN010152/APP/6.3] identifies that the risk of tidal/fluvial flooding during a breach scenario is considered to be 'high' based on the hydraulic modelling results. An Emergency Response Plan will be included as part of the detailed CEMP, DEMP and OEMP which will provide details of the response to an impending flood defence breach scenario including an evacuation plan.</p> <p>The On-Site Substation and BESS Area will be bunded to provide additional protection during an unlikely breach of the flood defences. Based on this mitigation, the residual risk of tidal/ fluvial flooding is considered to be 'low'. Any Field Stations within high surface water flood risk areas will also be raised 300 mm above expected surface water flood level.</p>

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

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ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] assesses flood risk in EIA terms and concludes that, with mitigation, there are no likely significant adverse effects on flood risk resulting from the construction, and operation and maintenance and decommissioning of the Scheme.

A Framework Drainage Strategy, (**ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]**) has been prepared detailing appropriate surface water drainage management through SuDS proposed as part of the Scheme to avoid increased flood risk from surface water and management of flow paths to ensure the Scheme remains safe throughout its lifetime. A detailed Drainage Strategy which must be in substantial accordance with the Framework Drainage Strategy is secured through requirement 9 of the **Draft DCO [EN010152/APP/3.1]**.

Paragraph 5.8.29

The sequential approach should be applied to the layout and design of the project. Vulnerable aspects of the development should be located on parts of the site at lower risk and residual risk of flooding. Applicants should seek opportunities to use open space for multiple purposes such as amenity, wildlife habitat and flood storage uses. Opportunities should be taken to lower

The **FRA ES Volume III Appendix 9-3 [EN010152/APP/6.3]** demonstrates that a sequential approach has been applied to the layout and design of the solar infrastructure within the Solar PV Site to date whereby the On-Site Substation, BESS Area and the majority of the Solar PV Panels are in areas with the lowest risk

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	flood risk by reducing the built footprint of previously developed sites and using SuDS	of flooding from any source. The Sequential Test has been applied to the Cable Route Corridor, confirming that there are no alternative locations available.
Paragraph 5.8.30	Where a development may result in an increase in flood risk elsewhere through the loss of flood storage, on-site level-for-level compensatory storage, accounting for the predicted impacts of climate change over the lifetime of the development, should be provided.	The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance
Paragraph 5.8.31	Where it is not possible to provide compensatory storage on site, it may be acceptable to provide it off-site if it is hydraulically and hydrologically linked. Where development may cause the deflection or constriction of flood flow routes, these will need to be safely managed within the site.	<p>There will also be no loss of floodplain storage, impedance of water flows or increase to flood risk elsewhere given the Grid Connection Cables will be underground.</p> <p>Design mitigation measures will be secured through the Draft DCO as part of the detailed OEMP to prevent an increase in flood risk to vulnerable receptors from the Scheme and</p>

**NPS EN-1
Relevant Paragraph**

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Detail**

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Proposed Development compliance**

Paragraph 5.8.32

Where development may contribute to a cumulative increase in flood risk elsewhere, the provision of multifunctional sustainable drainage systems, natural flood management and green infrastructure can also make a valuable contribution to mitigating this risk whilst providing wider benefits.

ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] sets out that in terms of cumulative impacts on flooding during construction, provided that standard and good practice mitigation is implemented on the construction sites of other developments through their respective CEMPs, which would be considered to follow similar good practice measures as set out in the **Framework CEMP [EN010152/APP/7.7]** for the Scheme, there are expected to be no significant cumulative effects during construction.

During operation, the Scheme will be designed to ensure no long-term deterioration in water quality or increase in flooding. As such, provided that all the mitigation measures are implemented for all cumulative developments, then the cumulative impacts from the Scheme and any cumulative developments would not be anticipated to produce any significant effects. Therefore, the potential for operation and maintenance cumulative effects are scoped out of further assessment.

Paragraph 5.8.33

The receipt of and response to warnings of floods is an essential element in the management of the residual risk

As set out in **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** the

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.8.34	<p>of flooding. Flood Warning and evacuation plans should be in place for those areas at an identified risk of flooding.</p> <p>The applicant should take advice from the local authority emergency planning team, emergency services and, where appropriate, from the local resilience forum when producing an evacuation plan for a manned energy project as part of the FRA. Any emergency planning documents, flood warning and evacuation procedures that are required should be identified in the FRA</p>	<p>Contractor will be required to produce an Emergency Response Plan following grant of the DCO and prior to construction. This will be secured via a requirement in the DCO requiring a detailed CEMP to be approved by the relevant planning authority and the Scheme implemented in accordance with this. The detailed CEMP will need to be in accordance with the Framework CEMP [EN010152/APP/7.7].</p>
Paragraph 5.8.35	<p>Flood resistant and resilient materials and design should be adopted to minimise damage and speed recovery in the event of a flood.</p>	<p>The Scheme has been designed to safeguard the water environment through being resilient to flooding now and in the future as set out in the Design and Access Statement [EN010152/APP/7.2].</p>
Paragraph 5.8.36	<p>In determining an application for development consent, the Secretary of State should be satisfied that where relevant:</p> <ul style="list-style-type: none"> • the application is supported by an appropriate FRA • the Sequential Test has been applied and satisfied as part of site selection • a sequential approach has been applied at the site level to minimise risk by directing the most vulnerable uses to areas of lowest flood risk • the proposal is in line with any relevant national and local flood risk management strategy²²³ • SuDS (as required in the next paragraph on National Standards) have been used unless there is clear evidence that their use would be inappropriate 	<p>The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change. The proposed drainage design set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) demonstrates that sustainable drainage systems have been designed into the Scheme and will be maintained by the Applicant, or another private operator in accordance.</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • in flood risk areas the project is designed and constructed to remain safe and operational during its lifetime, without increasing flood risk elsewhere (subject to the exceptions set out in paragraph 5.8.42) • the project includes safe access and escape routes where required, as part of an agreed emergency plan, and that any residual risk can be safely managed over the lifetime of the development • land that is likely to be needed for present or future flood risk management infrastructure has been appropriately safeguarded from development to the extent 	<p>Design mitigation measures will be secured through the Draft DCO as part of the detailed OEMP to prevent an increase in flood risk to vulnerable receptors from the Scheme and mitigate flood risk to the Scheme. The proposed measures are set out in the Framework OEMP [EN010152/APP/7.8]. An Emergency Response Plan will be included as part of the detailed CEMP, DEMP and OEMP which will provide details of the response to an impending flood defence breach scenario including an evacuation plan.</p> <p>A sequential approach has been applied in selecting the land for the Scheme and to the subsequent layout and design of the solar infrastructure within the Solar PV Site. This demonstrates that the Sequential Test has been met with respect to the Solar PV Site. The Sequential Test has been applied to the Grid Connection Corridor, confirming that there are no reasonably available alternative locations for this. The Exception Test has been passed in relation to the Solar PV Site and Grid Connection Corridor owing to the wider sustainability benefits that the Scheme will deliver and that it will remain safe throughout its lifetime without increasing flood risk elsewhere.</p>
Paragraph 5.8.38	In addition, the Development Consent Order, or any associated planning obligations, will need to make	The provision for appropriate operation and maintenance of any SuDS during construction will

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>provision for appropriate operation and maintenance of any SuDS throughout the project's lifetime. Where this is secured through the adoption of any SuDS features, any necessary access rights to property will need to be granted.</p>	<p>be controlled through the implementation of the detailed CEMP, DEMP. These will be substantially in accordance with the Framework CEMP [EN010152/APP/7.7], the and Framework DEMP [EN010152/APP/7.9] submitted as part of this DCO Application.</p> <p>The implementation of a detailed Drainage Strategy, which will need to be in accordance with the Framework Drainage Strategy (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]) secured as a requirement in the draft DCO [EN010152/APP/3.1], will also ensure the provision of SuDS during the operation of the Scheme.</p>
<p>Paragraph 5.8.41</p>	<p>Energy projects should not normally be consented within Flood Zone 3b, or Zone C2 in Wales, or on land expected to fall within these zones within its predicted lifetime. This may also apply where land is subject to other sources of flooding (for example surface water). However, where essential energy infrastructure has to be located in such areas, for operational reasons, they should only be consented if the development will not result in a net loss of floodplain storage, and will not impede water flows.</p>	<p>The FRA ES Volume III Appendix 9-4 [EN010152/APP/6.3] and ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] demonstrate that there will also be no loss of floodplain storage, impedance of water flows or increase to flood risk elsewhere given the Grid Connection Cables will be underground.</p>
<p>Paragraph 5.8.42</p>	<p>Exceptionally, where an increase in flood risk elsewhere cannot be avoided or wholly mitigated, the Secretary of State may grant consent if they are satisfied that the increase in present and future flood risk can be mitigated to an acceptable and safe level and taking account of the</p>	<p>The FRA (ES Volume III Appendix 9-3 [EN010152/APP/6.3]) and supporting assessments and hydraulic modelling confirm that the construction, operation and decommissioning of the Scheme, with mitigation and best practice</p>

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benefits of, including the need for, nationally significant energy infrastructure as set out in Part 3 above. In any such case the Secretary of State should make clear how, in reaching their decision, they have weighed up the increased flood risk against the benefits of the project, taking account of the nature and degree of the risk, the future impacts on climate change, and advice provided by the EA or NRW and other relevant bodies.

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control measures, will remain safe for its lifetime and will not increase flood risk elsewhere, taking into account climate change.

The need for the Scheme is explained in the **Statement of Need [EN010152/APP/7.3]** and summarised in Section 5 of this Planning Statement. Through the generation of low carbon electricity, the Scheme will contribute to the urgent need to decarbonise electricity generation in the UK as required by the latest national renewable energy policy and will contribute to the UK's legally binding climate change targets. Specifically, it will deliver a significant amount of low carbon energy delivering the benefits to the energy system set out in NPS EN-1. The Scheme will have both a national, and global significance, through its contribution to decarbonisation of the UK's electricity generation. The use of the BESS provides additional carbon saving opportunities as explained in the Statement of Need **[EN010152/APP/7.3]** and **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**.

Section 5 of this Planning Statement also explains the ecological enhancements of the Scheme's design set out in the **Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14]**; and benefits of the Scheme from employment generation and GVA

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contribution during construction. Similar economic benefits are also anticipated for the decommissioning phase.

In summary, it is considered that the Scheme will provide wider sustainability benefits to the community, including job creation in the local area during construction and decommissioning, that outweigh its impacts on flood risk in accordance with NPS EN-1.

Historic Environment

Paragraph 5.9.7

The Secretary of State should also consider the impacts on other non-designated heritage assets (as identified either through the development plan making process by plan-making bodies, including 'local listing', or through the application, examination and decision making process). This is on the basis of clear evidence that such heritage assets have a significance that merits consideration in that process, even though those assets are of lesser significance than designated heritage assets.

An assessment of likely significant effects resulting from the Scheme on the historic environment is included within Section 7.8 of the **ES Volume I Chapter 7: Cultural Heritage** of the ES [EN010152/APP/6.1]. This provides an assessment of impacts on non-designated heritage assets.

Evaluation fieldwork surveys have been undertaken to allow the Applicant to enhance the baseline understanding of cultural heritage assets including their potential value. The results of the fieldwork surveys are included within **Appendix 7-2: Cultural Heritage Desk-based Assessment [EN010152/APP/6.3]; Appendix 7-3: Cultural Heritage Gazetteer of Heritage Assets**

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**[EN010152/APP/6.3]; and Appendix 7-4:
Geophysical Survey Report
[EN010152/APP/6.3].**

ES Volume I Chapter 7: Cultural Heritage

[EN010152/APP/6.1] concludes there are a total of five non-designated heritage assets located within the Order limits, four of which are located within the Solar PV Site and one within the Grid Connection Corridor.

The assessment of effects has identified potential physical impacts to known buried archaeological remains located within the Solar PV Site and Grid Connection Corridor.

However, it is concluded that, with the implementation of mitigation, residual adverse effects on these non-designated assets would not be significant.

Mitigation measures include design measures, such as the use of pre-cast concrete blocks rather than piled mounts for the solar PV mounting structures within the Solar PV Site to enable preservation in situ of archaeological remains or micro-siting of elements of the Scheme to avoid archaeological remains. Avoiding physical impacts to these assets would result in no impact to their

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historical and archaeological interests and no effect to their heritage value.

Areas of archaeological activity within the Solar PV Site that have been identified as requiring additional mitigation, as well as potential mitigation strategies including preservation in-situ through the selective use of pre-cast concrete blocks, archaeological excavation and further assessment, are set out in the **Draft Archaeological Mitigation Strategy [EN010152/APP/7.19]**. A Final Archaeological Mitigation Strategy, which will be agreed with South Yorkshire Archaeology Service, is secured by requirement 10 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

Therefore, there are no significant residual effects on non-designated heritage assets as a result of the Scheme.

Paragraph 5.9.9

The applicant should undertake an assessment of any likely significant heritage impacts of the proposed development as part of the EIA and describe these along with how the mitigation hierarchy has been applied in the ES (see Section 4.2). This should include consideration of heritage assets above, at, and below the surface of the

ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] includes a clear and detailed assessment of the likely impacts and effects of the Scheme on cultural heritage, including cumulative effects.

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	<p>ground. Consideration will also need to be given to the possible impacts, including cumulative, on the wider historic environment. The assessment should include reference to any historic landscape or seascape character assessment and associated studies as a means of assessing impacts relevant to the proposed project</p>	
<p>Paragraph 5.9.11</p>	<p>Where a site on which development is proposed includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation. Where proposed development will affect the setting of a heritage asset, accurate representative visualisations may be necessary to explain the impact.</p>	<p>Archaeological evaluations were undertaken for the Scheme and are detailed in ES Volume III Appendix 7-4 [EN010152/APP/6.3] in addition to a cultural heritage desk-based assessment, ES Volume III Appendix 7-2 [EN010152/APP/6.3], geophysical survey and report, ES Volume III Appendix 7-4 [EN010152/APP/6.3] and trial trenching.</p>
<p>Paragraph 5.9.12</p>	<p>The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents. Studies will be required on those heritage assets affected by noise, vibration, light and indirect impacts, the extent and detail of these studies will be proportionate to the significance of the heritage asset affected.</p>	<p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] provides an assessment of the Scheme on cultural heritage, in accordance with this policy.</p> <p>Section 7.8 of the ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] includes an assessment of the likely effects of the Scheme on the value (heritage significance) of heritage assets. The ES considers the potential impacts arising from noise, vibration and lighting.</p>
<p>Paragraph 5.9.13</p>	<p>The applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution</p>	<p>The Applicant has undertaken an iterative design process which responds to policy requirements,</p>

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to the historic environment, and to consider how their scheme takes account of the significance of heritage assets affected. This can include, where possible:

- enhancing, through a range of measures such as sensitive design, the significance of heritage assets or setting affected
- considering where required the development of archive capacity which could deliver significant public benefits
- considering how visual or noise impacts can affect heritage assets, and whether there may be opportunities to enhance access to, or interpretation, understanding and appreciation of, the heritage assets affected by the scheme

published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant adverse effects on cultural heritage and archaeological assets. As set out in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**, mitigation measures that have been incorporated into the Scheme design include:

- The exclusion from development of a number of fields immediately surrounding the listed buildings at Fenwick Hall Farm and Lily Hall (at Riddings Farm) and the Scheduled Monument Fenwick Hall moated site, so as to preserve the open, pasture fields in their immediate surrounds.
- Heritage buffer area in the field adjacent to the Scheduled Monument Fenwick Hall moated site. This Heritage Buffer Area incorporates a 20 m setting buffer as agreed with Historic England, and has been extended to the full extents of the field to incorporate archaeological remains that may be associated with the moated site.

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- Enhancement of existing hedgerows along Lawn Lane to reduce visual intrusion and change to setting of the non-designated Haggs Farm and Croft Farm and to protect the character of the approach to the designated assets at Fenwick Hall and Riddings Farm.
- Replanting/enhancement of existing hedgerows/boundaries that are remnants of the medieval/post-medieval historic landscape in order to maintain the historic connectivity with associated heritage assets such as Fenwick Hall moated site.
- Retention and enhancement of hedgerows identified as 'important' hedgerows.
- Enhancement of existing hedgerows in proximity to designated heritage assets in order to screen views of the Scheme and reduce potential impacts to their setting, including along the western-most extent of the Solar PV Site.
- Heritage buffer areas for areas of archaeological interest identified from the archaeological evaluation surveys, of potentially high sensitivity to impacts. These areas include archaeological remains that may be associated with the Scheduled Monument Fenwick Hall moated site in Field SE1; and possible Iron Age/Romano-British settlement

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corridor that extends along the northern extent of the Fleet Drain through Fields NE11, NE12, NE10, NE8, and SE1 ((see **ES Volume II Figure 2-3: Indicative Site Layout Plan [EN010152/APP/6.2]**). Where heritage buffer areas also correlate with other environmental discipline mitigation areas, there will be no below ground impacts that could result in impacts to archaeological remains.

The design features described above demonstrate that the Applicant has taken care to develop the Scheme in a way that avoids, reduces and mitigates impacts on archaeology and heritage features, and accords with the mitigation hierarchy.

Paragraph 5.9.14

Careful consideration in preparing the scheme will be required on whether the impacts on the historic environment will be direct or indirect, temporary or permanent

ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] assesses the likely impacts of the Scheme on cultural heritage, including direct and indirect, and temporary or permanent effects.

ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that the Scheme will result in significant residual effects on the settings of the following designated heritage assets:

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- Fenwick Hall moated site scheduled monument (during the lifetime of the Scheme).
- Thorpe in Balne moated site, chapel and fishpond scheduled monument (during construction only).

These effects are temporary, and indirect as they only impact on the setting of these assets.

A significant cumulative effect has also been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm as set out in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**. This impact only occurs when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, no further mitigation is possible to reduce this impact to a non-significant level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant. This impact is considered to be long-term (for the lifespan of the Scheme).

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.9.15	Applicants should look for opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to the asset (or which better reveal its significance) should be treated favourably.	<p>There are no World Heritage Sites affected by the Scheme.</p> <p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] states there are no conservation areas within the Order limits. There are three Conservation Areas within the wider 5km Study Area, beyond 3km from the Solar PV Site (and beyond 1km from Grid Connection Corridor). This includes, Campsall, Owston and Fisblake Conservation Areas. The Scheme would not lead to any significant adverse effects on any of these conservation areas.</p> <p>The Scheme therefore does not lead to significant adverse effects to a World Heritage Site or Conservation Area, in accordance with this policy.</p>
Paragraph 5.9.24	In considering the impact of a proposed development on any heritage assets, the Secretary of State should consider the particular nature of the significance of the heritage assets and the value that they hold for this and future generations. This understanding should be used to avoid or minimise conflict between their conservation and any aspect of the proposal.	The particular nature of the significance of the heritage assets and the value they hold is set out in ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] as well as an assessment of effects on these assets.
Paragraph 5.9.27	When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any	ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that the Scheme will result in significant residual effects on the settings of the following designated heritage assets:

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potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance.

- Fenwick Hall moated site scheduled monument (during the lifetime of the Scheme).
- Thorpe in Balne moated site, chapel and fishpond scheduled monument (during construction only).

A significant cumulative effect has also been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm as set out in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**. This impact only occurs when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, no further mitigation is possible to reduce this impact to a non-significant level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant.

The **Heritage Statement in Appendix C** of the Planning Statement concludes that the significant effects to these assets resulting from the Scheme can reasonably be equated with less than substantial harm. The Scheme would

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therefore not result in substantial harm to these designated heritage assets. The **Heritage Statement** in **Appendix C** of the Planning Statement also considers a further four designated heritage assets and concludes these will experience less than substantial harm at the lower end of the spectrum.

The Applicant has undertaken an iterative design process which responds to policy requirements, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant adverse effects on cultural heritage and archaeological assets.

In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, (as set out in Section 5 of this Planning Statement,) including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.9.28	The Secretary of State should give considerable importance and weight to the desirability of preserving all heritage assets. Any harm or loss of significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification.	the less than substantial harm to designated heritage assets.
Paragraph 5.9.29	Substantial harm to or loss of significance of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional.	<p><u>Designated Heritage Assets</u></p> <p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that the Scheme will result in significant residual effects on the settings of the following designated heritage assets:</p> <ul style="list-style-type: none"> • Fenwick Hall moated site scheduled monument (during the lifetime of the Scheme). • Thorpe in Balne moated site, chapel and fishpond scheduled monument (during construction only).
Paragraph 5.9.30	Substantial harm to or loss of significance of assets of the highest significance, including Scheduled Monuments; Protected Wreck Sites; Registered Battlefields; grade I and II* Listed Buildings; grade I and II* Registered Parks and Gardens; and World Heritage Sites, should be wholly exceptional	<p>A significant cumulative effect has also been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm as set out in ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]. This impact only occurs when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1], no further mitigation is possible to reduce this impact to a non-significant</p>

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level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant.

The **Heritage Statement** in **Appendix C** of the Planning Statement concludes that the significant effects to these assets resulting from the Scheme can reasonably be equated with less than substantial harm. The Scheme would therefore not result in substantial harm to these designated heritage assets. The **Heritage Statement** in **Appendix C** of the Planning Statement also considers a further four designated heritage assets and concludes these will experience less than substantial harm at the lower end of the spectrum.

The Applicant has undertaken an iterative design process which responds to policy requirements, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant adverse effects on cultural heritage and archaeological assets.

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In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, (as set out in Section 5 of this Planning Statement,) including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.

Non-designated heritage assets

ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that there are potential physical impacts to known buried archaeological remains located within the Solar PV Site and Grid Connection Corridor.

However, it is concluded that, with the implementation of mitigation, residual adverse effects on these non-designated assets would not be significant.

Areas of archaeological activity within the Solar PV Site that have been identified as requiring additional mitigation, as well as potential mitigation strategies including preservation in-situ

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		<p>through the selective use of pre-cast concrete blocks, archaeological excavation and further assessment, are set out in the Draft Archaeological Mitigation Strategy [EN010152/APP/7.19]. A Final Archaeological Mitigation Strategy, which will be agreed with South Yorkshire Archaeology Service, is secured by requirement 10 of Schedule 2 in the draft DCO [EN010152/APP/3.1].</p>
<p>Paragraph 5.9.31</p>	<p>Where the proposed development will lead to substantial harm to (or total loss of significance of) a designated heritage asset the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss, or all the following apply:</p> <ul style="list-style-type: none"> • the nature of the heritage asset prevents all reasonable uses of the site • no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation • conservation by grant-funding or some form of not for profit, charitable or public ownership is demonstrably not possible • the harm or loss is outweighed by the benefit of bringing the site back into use 	<p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that the Scheme will result in significant residual effects on the settings of the following designated heritage assets:</p> <ul style="list-style-type: none"> • Fenwick Hall moated site scheduled monument (during the lifetime of the Scheme). • Thorpe in Balne moated site, chapel and fishpond scheduled monument (during construction only). <p>A significant cumulative effect has also been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm as set out in ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]. This impact only occurs when the Scheme is considered alongside the consented demolition of the associated Grade II</p>
<p>Paragraph 5.9.32</p>	<p>Where the proposed development will lead to less than substantial harm to the significance of the designated heritage asset, this harm should be weighed against the</p>	

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public benefits of the proposal, including, where appropriate securing its optimum viable use.

listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, no further mitigation is possible to reduce this impact to a non-significant level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant.

The **Heritage Statement in Appendix C** of the Planning Statement concludes that the significant effects to these assets resulting from the Scheme can reasonably be equated with less than substantial harm. The Scheme would therefore not result in substantial harm to these designated heritage assets. The **Heritage Statement in Appendix C** of the Planning Statement also considers a further four designated heritage assets and concludes these will experience less than substantial harm at the lower end of the spectrum.

The Applicant has undertaken an iterative design process which responds to policy requirements, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially

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significant adverse effects on cultural heritage and archaeological assets.

In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, (as set out in Section 5 of this Planning Statement,) including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.

Paragraph 5.9.33

In weighing applications that directly or indirectly affect non-designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset

ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes there are a total of five non-designated heritage assets located within the Order limits, four of which are located within the Solar PV Site and one within the Grid Connection Corridor.

The assessment of effects has identified potential physical impacts to known buried archaeological remains located within the Solar PV Site and Grid Connection Corridor.

However, it is concluded that, with the implementation of mitigation, residual adverse

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effects on these non-designated assets would not be significant.

Mitigation measures include design measures, such as the use of pre-cast concrete blocks rather than piled mounts for the solar PV mounting structures within the Solar PV Site to enable preservation in situ of archaeological remains or micro-siting of elements of the Scheme to avoid archaeological remains. Avoiding physical impacts to these assets would result in no impact to their historical and archaeological interests and no effect to their heritage value.

Areas of archaeological activity within the Solar PV Site that have been identified as requiring additional mitigation, as well as potential mitigation strategies including preservation in-situ through the selective use of pre-cast concrete blocks, archaeological excavation and further assessment, are set out in the **Draft Archaeological Mitigation Strategy [EN010152/APP/7.19]**. A Final Archaeological Mitigation Strategy, which will be agreed with South Yorkshire Archaeology Service, is secured by requirement 10 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.9.34	<p>Not all elements of a Conservation Area or World Heritage Site will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 5.9.30 or less than substantial harm under paragraph 5.9.32 as appropriate, considering the relative significance of the element affected and its contribution to the significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.</p>	<p>Therefore, there are no significant residual effects on non-designated heritage assets as a result of the Scheme.</p> <hr/> <p>There are no World Heritage Sites affected by the Scheme.</p> <p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] states there are no conservation areas within the Order limits. There are three Conservation Areas within the wider 5km Study Area, beyond 3km Study Area from the Solar PV Site (and beyond 1km from Grid Connection Corridor). This includes, Campsall, Owston and Fisblake. The Scheme would not lead to any significant adverse effects on any of these conservation areas.</p> <p>The Scheme therefore does not lead to significant adverse effects to a World Heritage Site or Conservation Area, in accordance with this policy</p>
Paragraph 5.9.36	<p>When considering applications for development affecting the setting of a designated heritage asset, the Secretary of State should give appropriate weight to the desirability of preserving the setting such assets and treat favourably applications that preserve those elements of the setting that make a positive contribution to, or better reveal the significance of, the asset. When considering applications that do not do this, the Secretary of State should give great weight to any negative effects, when weighing them</p>	<p><u>Designated Heritage Assets</u></p> <p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] concludes that the Scheme will result in significant residual effects on the settings of the following designated heritage assets:</p>

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against the wider benefits of the application. The greater the negative impact on the significance of the designated heritage asset, the greater the benefits that will be needed to justify approval.

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- Fenwick Hall moated site scheduled monument (during the lifetime of the Scheme).
- Thorpe in Balne moated site, chapel and fishpond scheduled monument (during construction only).

A significant cumulative effect has also been identified on the Grade II listed Barn and granary at Riddings Farm and Grade II listed Dovecote and attached outbuilding on west side of the farmyard at Riddings Farm as set out in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**. This impact only occurs when the Scheme is considered alongside the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (22/01536/FUL and 22/01537/LBC). As presented in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, no further mitigation is possible to reduce this impact to a non-significant level and, therefore, the cumulative effect on these heritage assets is assessed as moderate adverse and therefore significant.

The **Heritage Statement in Appendix C** of the Planning Statement concludes that the significant effects to these assets resulting from the Scheme can reasonably be equated with less than substantial harm. The Scheme would

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therefore not result in substantial harm to these designated heritage assets. The **Heritage Statement in Appendix C** of the Planning Statement also considers a further four designated heritage assets and concludes these will experience less than substantial harm at the lower end of the spectrum.

The Applicant has undertaken an iterative design process which responds to policy requirements, published historic landscape character assessments and fieldwork analysis, in order to avoid and minimise harm to the historic environment. In accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant adverse effects on cultural heritage and archaeological assets. As set out in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**, mitigation measures that have been incorporated into the Scheme design include:

- The exclusion from development of a number of fields immediately surrounding the listed buildings at Fenwick Hall Farm and Lily Hall (at Riddings Farm) and the Scheduled Monument Fenwick Hall moated site, so as to preserve

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the open, pasture fields in their immediate surrounds.

- Heritage buffer area in the field adjacent to the Scheduled Monument Fenwick Hall moated site. This Heritage Buffer Area incorporates a 20 m setting buffer as agreed with Historic England, and has been extended to the full extents of the field to incorporate archaeological remains that may be associated with the moated site.
- Replanting/enhancement of existing hedgerows/boundaries that are remnants of the medieval/post-medieval historic landscape in order to maintain the historic connectivity with associated heritage assets such as Fenwick Hall moated site.

In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, (as set out in Section 5 of this Planning Statement,) including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh

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the less than substantial harm to designated heritage assets.

Landscape and Visual

Paragraph 5.10.6

Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.

As outlined in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2]** the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.

Design principles were developed at an early stage and have guided the Scheme's design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in

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accordance with the mitigation hierarchy, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. This has included developing a landscape design which carefully integrates the Scheme into the existing landscape pattern as far as practicable by retaining and following existing features, and providing new planting, including the filtering and screening of views from visual receptors.

The layout and appearance of the Solar PV Site was developed by a team of qualified and experienced professionals and informed by the outcome of baseline ecology, landscape and visual, heritage, flood risk, access surveys, and consultation feedback. The site layout design is described in **ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1]** and illustrated on **ES Volume II Figure 2-3 Indicative Site Layout Plan [EN010152/APP/6.2]** which provides an efficient arrangement to maximise electricity generation whilst avoiding and minimising environmental effects. Underground cabling is proposed to reduce visual impacts.

The Applicant has sought to reduce adverse impacts by not surrounding local villages, including the village of Fenwick which occupies a large area of unconstrained land as shown on **ES**

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.10.7	<p>National Parks, the Broads and AONBs have been confirmed by the government as having the highest status of protection in relation to landscape and natural beauty. Each of these designated areas has specific statutory purposes. Projects should be designed sensitively given the various siting, operational, and other relevant constraints. For development proposals located within designated landscapes the Secretary of State should be satisfied that measures which seek to further purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development.</p>	<p>Volume II Figure 3-4: Planning, Environmental and Land Use Constraints [EN010152/APP/6.2]. The Scheme’s proposed layout also incorporates buffers from nearby residential dwellings.</p> <hr/> <p>The Scheme is not located within any of these designations. ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] confirms there are no national landscape designations impacts by the Scheme.</p>
Paragraph 5.10.8	<p>The duty to seek to further the purposes of nationally designated landscapes also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. In these locations, projects should be sensitively given the various siting, operational, and other relevant constraints. The Secretary of State should be satisfied that measures which seek to further the purposes of the designation are sufficient, appropriate and proportionate to the type and scale of the development.</p>	
Paragraph 5.10.12	<p>Outside nationally designated areas, there are local landscapes that may be highly valued locally. Where a local development document in England or a local development plan in Wales has policies based on</p>	<p>ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] provides an assessment of the likely significant effects of the Scheme on landscape character during</p>

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landscape or waterscape character assessment, these should be paid particular attention. However, locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.

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construction (2028-2030, during winter), operation and maintenance (Year 1 during winter and Year 15 during winter and summer), as well as decommissioning (2070, during winter), taking into account the landscape character sensitivity and the proposed mitigation strategy for minimising effects.

Taking into account the landscape character sensitivity and the proposed mitigation strategy for minimising effects, the assessment concludes that the Scheme would have significant adverse effects on a number of landscape receptors as a result of construction and decommissioning. However, these effects would be short-term and temporary.

In terms of operational effects, there would be an evident change in land use resulting from the Solar PV Site, which would alter the open character of the landscape. At Year 1, Moderate Adverse (significant) effects are therefore anticipated on the following landscape receptors:

- Landscape Character Area F2: Owsten to Sykehouse Settled (LCA F2);
- Local Landscape Character Area 01: Fenwick Village (LLCA 01);

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- Local Landscape Character Area 02: Fenwick Farmlands (LLCA 02);
- Local Landscape Character Area 03: River Went Farmlands (South) (LLCA 03); and
- Local Landscape Character Area 05: River Went Corridor (LLCA 05).

However, at Year 15, these effects would reduce and would not be significant for all of the above receptors, except for LLCA 02 – Fenwick Farmlands. This local landscape character area would still experience significant effects (Moderate Adverse): this is because two thirds of it would still be occupied by the Solar PV Site, continuing to introduce an evident change in land use and character.

For all other sensitive landscape receptors, the effects at Year 15 would not be significant, ranging from Neutral to Minor Adverse. By Year 15, structural planting proposed as part of the Scheme, including hedgerow gapping-up and new vegetation belts would have matured, helping to reduce the area from which the Scheme would be perceptible. Replacement planting along the Grid Connection Corridor would have also established and ground cover would be returned to its

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>previous use, such that there would be no change in the landscape character.</p> <p>For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (Error! Reference source not found.), Error! Reference source not found., it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.</p> <p>Overall, therefore it is considered that the Scheme accords with national and local landscape and visual amenity policies.</p>
Paragraph 5.10.13	All proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites.	The Applicant has undertaken an iterative design process which responds to policy requirements set out in NPS EN-1 (Error! Reference source not found.) and NPS EN-3 (Error! Reference source not found.), Error! Reference source not found. and NPS EN-3 (Error! Reference source not found.), published landscape character assessments and fieldwork analysis, in order to minimise harm to the landscape and reduce the visual effects of the Scheme. This has been
Paragraph 5.10.14	The Secretary of State will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.	

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achieved through a Scheme that is of good design which balances the need to generate a large amount of renewable energy, whilst responding to the local context and integrating the Scheme into its landscape setting, in accordance with national and local planning policies.

As described in **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]**, an extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and visual effects of the Scheme as far as practicable. As described above, some significant adverse residual effects on landscape character and visual amenity would remain by Year 15 of the operation and maintenance phase of the Scheme. However, these operational effects are localised and would be reversed following 40 years of operation through decommissioning.

As recognised in NPS EN-1 paragraph 5.10.5 (**Error! Reference source not found.**), **Error! Reference source not found.**, the development of new energy infrastructure, at the scale and speed required to meet the current and future need identified, is likely to have some negative effects on landscape and visual amenity which may not be able to be mitigated.

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The Scheme has sought to minimise impacts through design iteration and careful planting, it is therefore considered that the Scheme accords with paragraphs 5.10.6 and 5.10.37 of NPS EN-1 (**Error! Reference source not found.**)**Error! Reference source not found.**) and has taken account of the existing character and sensitivity of the landscape as set out in local policy.

For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (**Error! Reference source not found.**),**Error! Reference source not found.**) it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.

Overall, therefore it is considered that the Scheme accords with national and local landscape and visual amenity policies.

Paragraph 5.10.16

The applicant should carry out a landscape and visual impact assessment and report it in the ES, including cumulative effects (see Section 4.3). Several guides have been produced to assist in addressing landscape issues.

A Landscape and Visual Impact Assessment has been undertaken and included within **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** which includes cumulative

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.10.17	The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England and local development plans in Wales.	effects, in accordance with paragraph 5.10.16. It also includes references to local and national landscape character assessments and associated studies as a means of assessing landscape impacts. The Planning Statement, and Appendix B of this document takes account of any relevant policies based on these assessments in local development documents.
Paragraph 5.10.19	The applicant should consider landscape and visual matters in the early stages of siting and design, where site choices and design principles are being established. This will allow the applicant to demonstrate in the ES how negative effects have been minimised and opportunities for creating positive benefits or enhancement have been recognised incorporated into the design, delivery, and operation of the scheme.	Good design has been a key consideration from the outset, which has informed and shaped the design, layout and landscape design as discussed in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2] . Landscape and visual matters have been considered throughout the design evolution process. ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] details the site selection process while the Design and Access Statement [EN010152/APP/7.2] sets out key design considerations.
Paragraph 5.10.20	The assessment should include the effects on landscape components and character during construction and operation. For projects which may affect a National Park, The Broads or an Areas of Outstanding Natural Beauty the assessment should include effects on the natural beauty and special qualities of these areas'	This is assessed in Section 10.8 – an Assessment of Likely Effects of ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] . The Scheme would not affect a National Park, The Broads or any Areas of Outstanding Natural

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.10.20	The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation.	Beauty. This is assessed in Section 10.8 – an Assessment of Likely Effects of ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] .
Paragraph 5.10.22	The assessment should also address the landscape and visual effects of noise and light pollution, and other emissions (see Section 5.2 and Section 5.7), from construction and operational activities on residential amenity and on sensitive locations, receptors and views, will be minimised.	<p>ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] includes an assessment of the potential landscape and visual impacts associated with the construction, operation and decommissioning of the Scheme on local amenity, including an assessment of light pollution impacts.</p> <p>The construction noise assessment presented in Section 11.8 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] includes the assessment of noise resulting from road traffic movements generated during construction. Traffic during the operational period will be negligible. It concludes that no significant noise or vibration impacts are expected during the operation of the Scheme as the Significant Observed Adverse Effect Level (SOAEL) is not exceeded at any location.</p> <p>With the implementation of mitigation measures significant adverse noise and vibration effects</p>

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during the construction, operation and decommissioning of the Scheme will be avoided at sensitive receptors. Mitigation measures have been embedded into the Scheme design and construction methodology to minimise adverse effects where practicable, as set out in Section 11.7 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] and the Framework CEMP [EN010152/APP/7.7]**. These include design measures representing Best Practicable Means (BPM) during construction and decommissioning, the consideration of plant selection, layout of the Solar PV Site, including locating and orienting noise generating infrastructure in a sensitive manner to minimise operational noise at sensitive receptors..

A hierarchy of mitigation measures is contained within the **Framework CEMP [EN010152/APP/7.7]** which will ensure that significant adverse noise and vibration effects do not occur in the unlikely event of requiring to undertake HDD works at night and will be agreed once the principal contractor for these works is appointed. These measures include avoiding trenchless activities within 200 m of sensitive receptors and the use of temporary acoustic fencing depending on the location, plant and timing of works.

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Paragraph 5.10.24

Applicants should consider how landscapes can be enhanced using landscape management plans, as this will help to enhance environmental assets where they contribute to landscape and townscape quality.

In addition, consideration has been given to traffic routing, timing and access points to the Scheme to minimise noise impacts at existing receptors and the management of construction traffic on the highway network through the **Framework CTMP [EN010152/APP/7.17]**, which will inform a detailed CTMP to be secured through requirement 13 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

The **Framework LEMP [EN010152/APP/7.14]** submitted in support of the DCO Application sets out the parameters for delivering the indicative landscape and ecological enhancements as illustrated by the Indicative Landscape Masterplan at Appendix A of the **Framework LEMP [EN010152/APP/7.14]**. A requirement forms part of the **Draft DCO [EN010152/APP/3.1]** stating that no part of the authorised development shall commence until a LEMP for that part has been submitted to and approved in writing by the relevant local planning authority and that the LEMP must be substantially in accordance with the Framework LEMP. The Framework LEMP includes the following mitigation and enhancement measures:

- New green infrastructure elements will be established, and habitat corridors enhanced through the Solar PV Site. These will improve

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wildlife connectivity, elevate landscape quality, and enhance visual amenity.

- Large areas of modified and neutral grassland will be provided beneath the solar panels and across the broader Solar PV Site in order to boost biodiversity and create new habitats.
- Areas of created and enhanced grassland will be of benefit to species reliant on such habitats, such as skylark.
- The Scheme will also increase and enhance the existing hedgerow network, with gapping up and planting of native hedgerows with hedgerow trees, providing better connectivity and creating new valuable habitats.
- Land adjacent to the River Went within the Solar PV Site will be conserved and enhanced in order to maintain the existing open riparian mosaic and provide further benefits to biodiversity.
- Habitat boxes will be installed on suitable features (buildings and trees) within the Order limits to provide additional nesting and roosting opportunities for bats and a range of bird species, including barn owl.
- Reptile and amphibian hibernacula/refugia will be provided utilising logs created during the removal of trees, through small bunds over

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logs/inert rubble, or piles of vegetation clippings.

Additional enhancement for terrestrial invertebrates will include the planting of blackthorn hedges to create food plants for brown hairstreak which have been recorded on the Solar PV Site.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Ref. 44). A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.

Paragraph 5.10.25

In considering visual effects it may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on equally sensitive receptors. This may assist the Secretary of State in judging the weight they should give to the assessed visual impacts of the proposed development.

Section 10.6 of **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** identifies notable infrastructure character to the southeast part of the Solar PV Site due to the existing pylons. An existing wind turbine at Riddings Farm is notable within the north of the Solar PV Site

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Paragraph 5.10.26

Within a defined site, adverse landscape and visual effects may be minimised through appropriate siting of infrastructure within that site, design including colours and materials, and landscaping schemes, depending on the size and type of the proposed project. Materials and designs of buildings should always be given careful consideration.

Design principles were developed at an early stage and have guided the Scheme's design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in accordance with the mitigation hierarchy, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. This has included developing a landscape design which carefully integrates the Scheme into the existing landscape pattern as far as practicable by retaining and following existing features, and providing new planting, including the filtering and screening of views from visual receptors. The materials and design of structures proposed as part of the Scheme will be given careful consideration during the detailed design phase.

The Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.10.28	Depending on the topography of the surrounding terrain and areas of population it may be appropriate to undertake landscaping off site. For example, filling in gaps in existing tree and hedge lines may mitigate the impact when viewed from a more distant vista	local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.
Paragraph 5.10.30	The Secretary of State should be satisfied that local authorities will have sufficient design content secured to ensure future consenting will meet landscape, visual and good design objectives.	The Scheme will not undertake any landscaping off site.
Paragraph 5.10.34	The duty to seek to further the purposes of nationally designated landscapes also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid harming the purposes of designation or to minimise adverse effects on designated landscapes, and such projects should be designated sensitively given the various siting, operational, and other relevant	The Outline Design Parameters Statement [EN010152/APP/7.3] and the Framework LEMP [EN010152/APP/7.14] will inform the detailed design of the Scheme to be secured through requirements forming part of the DCO.
		No nationally designated landscapes will be impacted by the Scheme.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>constraints. The fact that a proposed project will be visible from within a designated area should not in itself be a reason for the Secretary of State to refuse consent</p>	
<p>Paragraph 5.10.35</p>	<p>The scale of energy projects means that they will often be across a very wide area. The Secretary of State should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project</p>	<p>The Applicant has undertaken an iterative design process which responds to policy requirements set out in NPS EN-1 (Ref. 2) and NPS EN-3 (Ref. 3), published landscape character assessments and fieldwork analysis, in order to minimise harm to the landscape and reduce the visual effects of the Scheme. This has been achieved through a Scheme that is of good design which balances the need to generate a large amount of renewable energy, whilst responding to the local context and integrating the Scheme into its landscape setting, in accordance with national and local planning policies.</p> <p>As described in ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1], an extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and visual effects of the Scheme as far as practicable. As described above, some significant adverse residual effects on landscape character and visual amenity would remain by Year 15 of the operation and maintenance phase of the Scheme. However, these operational effects</p>

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

are localised and would be reversed following 40 years of operation through decommissioning.

As recognised in NPS EN-1 paragraph 5.10.5 (Ref. 2), the development of new energy infrastructure, at the scale and speed required to meet the current and future need identified, is likely to have some negative effects on landscape and visual amenity which may not be able to be mitigated.

The Scheme has sought to minimise impacts through design iteration and careful planting, it is therefore considered that the Scheme accords with paragraphs 5.10.6 and 5.10.37 of NPS EN-1 (Ref. 2) and has taken account of the existing character and sensitivity of the landscape as set out in local policy.

For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (Ref. 2), it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term,

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Paragraph 5.10.36

In reaching a judgement, the Secretary of State should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the Secretary of State considers reasonable.

the residual local landscape and visual effects will also be temporary.
Overall, therefore it is considered that the Scheme accords with national and local landscape and visual amenity policies.

Construction and decommissioning stage impacts will be for a relatively short duration, and operational effects beginning at Year 1 will reduce over time as mitigation planting establishes. The change to the landscape character, via the introduction of solar panels and associated infrastructure is considered to be localised. The reduction of effects over time and the reversibility of effects should be taken into consideration when reaching a judgement on the Application. All operational effects will be reversed following 40 years of operation which will be secured by the DCO, and all adverse landscape and visual effects identified during the construction and decommissioning phases are short term and temporary.

The Scheme has sought to minimise impacts through design iteration. The substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweighs the residual landscape effects when applying the

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.10.37	The Secretary of State should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by appropriate mitigation	<p>planning balancing exercise to the Scheme with no requirement to demonstrate exceptional circumstances given the presumption for allowing the DCO.</p> <hr/> <p>The Scheme has been designed taking into account the environmental effects on the landscape, siting, operational and other relevant constraints, to minimise adverse impacts on the landscape, including by appropriate mitigation. This is outlined in ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] and the Framework LEMP [EN010152/APP/7.14].</p>
Paragraph 5.10.38	The Secretary of State should consider whether requirements to the consent are needed requiring the incorporation of particular design details that are in keeping with the statutory and technical requirements for landscape and visual impact.	<p>The draft DCO [EN010152/APP/3.1] includes requirements in Schedule 2 which secure the preparation and implementation of a Design Parameters Statement and LEMP which will need to be substantially in accordance with the Outline Design Parameters Statement [EN010152/APP/7.3] and the Framework LEMP [EN010152/APP/7.14].</p>
Land Use, Including Open Space, Green Infrastructure and Green Belt		
Paragraph 5.11.4	Development of land will affect soil resources, including physical loss of and damage to soil resources, through land contamination and structural damage. Indirect impacts may also arise from changes in the local water regime, organic matter content, soil biodiversity and soil process.	<p>ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1] presents an assessment of the likely significant effects on socio-economics and land use as a result of the Scheme. This assessment covers the impacts of the Scheme on Best and Most Versatile (BMV) agricultural land and soils within the Order limits.</p>

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Measures to mitigate against damage to the structure, function and resilience of soil resources during construction and operation and maintenance are set out in the **Framework CEMP [EN010152/APP/7.7]** and the **Framework OEMP [EN010152/APP/7.8]**. A **Framework Soil Management Plan (Framework SMP) [EN010152/APP/7.10]** has also been prepared. The Framework SMP includes measures to ensure that soil quality is not degraded during construction and operation and maintenance. Requirement 15 in Schedule 2 of the **draft DCO [EN010152/APP/3.1]** will secure the approval of a detailed SMP that must be substantially in accordance with the Framework SMP and implemented as approved.

Paragraph 5.11.8

The ES (see Section 4.3) 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

ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1], and section 3.5 of the Planning Statement identifies existing and proposed land uses near the project. The Scheme would not preclude any new development or use proposed in the development plan.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.11.12	Applicants should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a of the Agricultural Land Classification) and preferably use land in areas of poorer quality (grades 3b, 4 and 5).	Agricultural land quality was a key consideration in the Applicant's site selection process. In respect of point A (1), as set out in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] , the Applicant considered locations that would avoid best and most versatile (BMV) agricultural land. To identify these locations the Applicant used provisional Agricultural Land Classification (ALC) mapping published by Natural England. This is identified on ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2] and ES Volume II Figure 3-3: Exclusion of Best and Most Versatile agricultural land [EN010152/APP/6.2] and allowed the identification of areas of land that comprised of non-BMV land (Grade 4, Grade 5 and non-agricultural land) within City of Doncaster Council's administrative area. Grade 1, 2 and 3 BMV land and urban areas identified on ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2] were avoided. Previously developed land was also considered. These land types were identified by checking the local authority brownfield register. No suitable or available areas of brownfield or non-agricultural land were identified.

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report

[EN010152/APP/6.3] confirms that 7% of the Solar PV Site would be classified as BMV land in areas to be occupied by Solar PV panels, Ecology Mitigation Area (including part of the Heritage Buffer Area) and the BESS. In respect of points A (2), C and D, all these areas can be restored to agricultural use by the landowner at decommissioning, with all structures removed and stored topsoil returned. In addition, disturbance to agricultural land within the Grid Connection Corridor will be short term as the land would be reinstated following construction. A **Framework DEMP [EN010152/APP/7.9]** is submitted as part of the DCO Application, with a detailed DEMP being secured as requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. The DEMP will ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

In summary the Scheme maximises the use of poorer quality agricultural land, minimises impacts on best and most versatile agricultural land and includes mitigation measures to reduce impacts on the soil resource.

Paragraph 5.11.13

Applicants should also identify any effects and seek to minimise impacts on soil health and protect and improve

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.11.14	<p>soil quality taking into account any mitigation measures proposed.</p> <p>Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination. The sustainable reuse of soils needs to be carefully considered in line with good practice guidance where large quantities of soils are surplus to requirements or are affected by contamination</p>	<p>ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1] presents an assessment of the likely significant effects on socio-economics and land use as a result of the Scheme. This assessment covers the impacts of the Scheme on Best and Most Versatile (BMV) agricultural land and soils within the Order limits.</p> <p>Measures to mitigate against damage to the structure, function and resilience of soil resources during construction and operation and maintenance are set out in the Framework CEMP [EN010152/APP/7.7] and the Framework OEMP [EN010152/APP/7.8]. A Framework Soil Management Plan (Framework SMP) [EN010152/APP/7.10] has also been prepared. The Framework SMP includes measures to ensure that soil quality is not degraded during construction and operation and maintenance. Requirement 15 in Schedule 2 of the draft DCO [EN010152/APP/3.1] will secure the approval of a detailed SMP that must be substantially in accordance with the Framework SMP and implemented as approved.</p>
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	ES Volume I Chapter 14: Other Environmental Topics [EN/010152/APP/6.1] assesses the impacts of the Scheme on ground conditions.

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Following implementation of the recommendations of the Quantitative Risk Assessment (to be completed post-consent) into the detailed CEMP, along with the environmental design and management measures for the construction, operation and decommissioning phases, the risk to human health, controlled waters and other sensitive receptors is considered acceptable. Therefore, the Scheme is not considered to pose an unacceptable risk to human health or the environment during construction, operation or decommissioning. It is not expected that the Scheme would result in any significant effects associated with ground conditions

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

The Grid Connection Corridor enters the MSA buffer at Moss Villa and Trumfleet, then proceeds to enter the MSA at White House Farm, where it follows existing linear features including roads such as Marsh Road and Thorpe Bank Road. Thorpe Bank Road also closely follows the route of the River Don. The proposed Grid Connection Corridor is approximately 6.3 km in length, of which approximately 1.47 km is located within the MSA and a further 1.1 km within the MSA buffer. The cables will be installed and buried using conventional open cut trench techniques.

ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1] has considered

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

the impact of the Scheme on the MSA. **ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN/010152/APP/6.3]** presents an assessment of the Scheme (specifically, the Grid Connection Corridor) in the context of the five criteria of Policy 61 (Part B) of the Doncaster Local Plan, noting that accordance with only one of the criteria needs to be demonstrated by the Applicant to achieve policy support for non-mineral development within the MSA and 250 m buffer zone. The report explains that the Scheme accords with criteria 2, 4 and 5 of Policy 61 (Part B) of the Doncaster Local Plan as summarised below.

The maximum length of the Grid Connection Corridor which overlies the MSA is around 3-4 km in length (dependent on routeing within the corridor). Therefore the land take associated with the Grid Connection Cables is relatively small as it will be a narrow linear feature. Should an operator in the future judge that a specific area along the route of the Grid Connection Cables is commercially viable for mineral extraction, the cables could be diverted to allow mineral extraction to be undertaken. Therefore, it is considered that non-mineral development can take place without preventing the economically viable mineral resource (if present) being extracted in the future, which accords with

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

criterion 2 of Policy 61 Part B of the Doncaster Local Plan.

In accordance with criterion 4 of Policy 61 Part B, it is considered that the need for the Scheme substantially outweighs the minor impact it may have on mineral reserves within the MSA. At the local level, City of Doncaster Council recognises the urgent need to address the causes of climate change and declared a climate and biodiversity emergency in 2019, with the aim to become carbon neutral by 2040 . At the national level, NPS EN-1 sets out that the provision of nationally significant low carbon infrastructure such as solar farms is a critical national priority (CNP).

Paragraph 5.11.23

Although in the case of most energy infrastructure there may be little that can be done to mitigate the direct effects of an energy project on the existing use of the proposed site (assuming that some of that use can still be retained post project construction) applicants should nevertheless seek to minimise these effects and the effects on existing or planned uses near the site by the application of good design principles, including the layout of the project and the protection of soils during construction.

The existing use of the site is mainly agricultural land. Agricultural land quality was a key consideration in the Applicant's site selection process. In respect of point A (1), as set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**, the Applicant considered locations that would avoid best and most versatile (BMV) agricultural land. To identify these locations the Applicant used provisional Agricultural Land Classification (ALC) mapping published by Natural England . This is identified on **ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2]** and **ES Volume II Figure 3-3: Exclusion of Best and**

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Most Versatile agricultural land [EN010152/APP/6.2] and allowed the identification of areas of land that comprised of non-BMV land (Grade 4, Grade 5 and non-agricultural land) within City of Doncaster Council's administrative area. Grade 1, 2 and 3 BMV land and urban areas identified on **ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2]** were avoided. Previously developed land was also considered. These land types were identified by checking the local authority brownfield register. No suitable or available areas of brownfield or non-agricultural land were identified.

ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report [EN010152/APP/6.3] confirms that 7% of the Solar PV Site would be classified as BMV land in areas to be occupied by Solar PV panels, Ecology Mitigation Area (including part of the Heritage Buffer Area) and the BESS. In respect of points A (2), C and D, all these areas can be restored to agricultural use by the landowner at decommissioning, with all structures removed and stored topsoil returned. In addition, disturbance to agricultural land within the Grid Connection Corridor will be short term as the land would be reinstated following construction. A **Framework DEMP [EN010152/APP/7.9]** is submitted as part

**NPS EN-1
 Relevant Paragraph**

**NPS EN-1
 Detail**

**NPS EN-1
 Proposed Development compliance**

Paragraph 5.11.27

Existing trees and woodlands should be retained wherever possible. In the EIP, the Government committed to increase the tree canopy and woodland cover to 16.5% of total land areas of England by 2050. The applicant should assess the impacts on, and loss of, all trees and woodlands within the project boundary and develop mitigation measures to minimise adverse impacts and any risk of net deforestation as a result of the scheme. Mitigation may include, but is not limited to, the use of buffers to enhance resilience, improvements to connectivity, and improved woodland management. Where woodland loss is unavoidable, compensation schemes will be required, and the long-term management and maintenance of newly planted trees should be secured.

of the DCO Application, with a detailed DEMP being secured as requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. The DEMP will ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

ES Volume I Chapter 8: Ecology

[EN010152/APP/6.1] sets out that the Scheme has been designed to avoid key nature conservation and ecological features present within or adjacent to the Order limits. Measures taken to avoid and retain trees are as follows:

- All Solar PV Panels have been sited within the existing field pattern, protecting existing vegetation, and maximising the natural screening provided by field boundary vegetation.
- Offsets from trees and woodlands have been incorporated to ensure the health and longevity of vegetation, retaining the existing structure of the landscape. This includes minimum offsets of:
 - 15 m from individual trees (or greater if required by the root protection area);
 - 15 m from woodland;
 - 5 m from hedgerows; and

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

- 10 m from watercourses.
- The design uses existing tracks, lanes and access points across the Solar PV Site, wherever practicable, in order to minimise the disturbance of existing vegetation.
- Important hedgerows, as identified under Schedule 1 of the Hedgerow Regulations 1997, will be retained.

An Arboricultural Impact Assessment (AIA) has been undertaken and is presented in **ES Volume III Appendix 10.7 Arboricultural Impact Assessment [EN010152/APP/6.3]** which considers the likely direct and indirect arboricultural impacts of the Scheme on trees within or immediately adjacent to the Order limits. The design of the Scheme has been developed to avoid or minimise tree loss and impacts, especially to those trees with the greatest quality and value (ancient or veteran trees). The AIA concludes that tree feature loss (including hedgerows) to facilitate the Scheme represents approximately 5,965 m² or 1.2% of the total tree canopy cover surveyed within the Order limits with 98.8% (505,790 m²) of surveyed canopy cover retained. All tree features to be removed are within the Order limits. No veteran or ancient trees

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

are to be removed which is secured via the **Framework CEMP [EN010152/APP/7.7]**.

The **Framework LEMP [EN010152/APP/7.14]** submitted in support of the DCO Application sets out the parameters for delivering the indicative landscape and ecological enhancements as illustrated by the Indicative Landscape Masterplan at Appendix A of the **Framework LEMP [EN010152/APP/7.14]**. A requirement forms part of the **Draft DCO [EN010152/APP/3.1]** stating that no part of the authorised development shall commence until a LEMP for that part has been submitted to and approved in writing by the relevant local planning authority and that the LEMP must be substantially in accordance with the Framework LEMP.

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.

ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1] has considered the impact of the Scheme on the MSA. **ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN/010152/APP/6.3]** presents an assessment of the Scheme (specifically, the Grid Connection Corridor) in the context of the five criteria of Policy 61 (Part B) of the Doncaster Local Plan, noting that accordance with only one of the criteria needs to be demonstrated by the Applicant to achieve policy support for non-mineral development within the MSA and 250 m buffer zone. The report explains

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

that the Scheme accords with criteria 2, 4 and 5 of Policy 61 (Part B) of the Doncaster Local Plan, as summarised below.

The maximum length of the Grid Connection Corridor which overlies the MSA is around 3-4 km in length (dependent on routeing within the corridor). Therefore the land take associated with the Grid Connection Cables is relatively small as it will be a narrow linear feature. Should an operator in the future judge that a specific area along the route of the Grid Connection Cables is commercially viable for mineral extraction, the cables could be diverted to allow mineral extraction to be undertaken. Therefore, it is considered that non-mineral development can take place without preventing the economically viable mineral resource (if present) being extracted in the future, which accords with criterion 2 of Policy 61 Part B of the Doncaster Local Plan

In accordance with criterion 4 of Policy 61 Part B, it is considered that the need for the Scheme substantially outweighs the minor impact it may have on mineral reserves within the MSA. At the local level, City of Doncaster Council recognises the urgent need to address the causes of climate change and declared a climate and biodiversity emergency in 2019, with the aim to become

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Paragraph 5.11.30

Public Rights of way, National Trails, and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The Secretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails, other rights of way and open access land and, where appropriate, to consider what opportunities there may be to improve or create new access. In considering revisions to an existing right of way, consideration should be given to the use, character, attractiveness, and convenience of the right of way

carbon neutral by 2040. At the national level, NPS EN-1 sets out that the provision of nationally significant low carbon infrastructure such as solar farms is a critical national priority (CNP).

Access to all existing PRoW will be retained during construction, with no proposed PRoW closures and a limited number of PRoW diversions necessitated by the Scheme (Fenwick 16, Fenwick 14, Moss 6, Sykehouse 29). During operation, the existing PRoW which pass through or run adjacent to the Order limits would be unaffected, with the exception of Sykehouse 29, Moss 6 and Fenwick which would be permanently diverted. The permanent diversions of these PRoW would increase their journey length by minimal distances (less than 50 m) and no significant adverse effects on PRoW users are therefore anticipated. The full extent of the proposed PRoW diversions is shown in **ES Volume II Figure 2-2: Public Rights of Way** and set out in the **Framework Public Rights of Way Management Plan [EN010152/APP/7.13]**. During decommissioning, it is anticipated that the PRoW will be managed in a similar way to construction.

Measures to ensure that the use, character, attractiveness and convenience of PRoW in relation to landscaping is set out in the Framework LEMP [EN010152/APP/7.14] which includes the

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

Paragraph 5.11.34

The Secretary of State should ensure that applicants do not site their scheme on the best and most versatile agricultural land without justification. Where schemes are to be sited on best and most versatile agricultural land the Secretary of State should take into account the economic and other benefits of that land. Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.

provision of new neutral grassland being seeded along PRow buffers across the Scheme.

Agricultural land quality was a key consideration in the Applicant's site selection process. In respect of point A (1), as set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**, the Applicant considered locations that would avoid best and most versatile (BMV) agricultural land. To identify these locations the Applicant used provisional Agricultural Land Classification (ALC) mapping published by Natural England. This is identified on **ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2]** and **ES Volume II Figure 3-3: Exclusion of Best and Most Versatile agricultural land [EN010152/APP/6.2]** and allowed the identification of areas of land that comprised of non-BMV land (Grade 4, Grade 5 and non-agricultural land) within City of Doncaster Council's administrative area. Grade 1, 2 and 3 BMV land and urban areas identified on **ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2]** were avoided. Previously developed land was also considered. These land types were identified by checking the local authority brownfield register. No suitable or available areas of brownfield or non-agricultural land were identified.

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

**NPS EN-1
Proposed Development compliance**

ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report

[EN010152/APP/6.3] confirms that 7% of the Solar PV Site would be classified as BMV land in areas to be occupied by Solar PV panels, Ecology Mitigation Area (including part of the Heritage Buffer Area) and the BESS. In respect of points A (2), C and D, all these areas can be restored to agricultural use by the landowner at decommissioning, with all structures removed and stored topsoil returned. In addition, disturbance to agricultural land within the Grid Connection Corridor will be short term as the land would be reinstated following construction. A **Framework DEMP [EN010152/APP/7.9]** is submitted as part of the DCO Application, with a detailed DEMP being secured as requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. The DEMP will ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

In summary the Scheme maximises the use of poorer quality agricultural land, minimises impacts on best and most versatile agricultural land and includes mitigation measures to reduce impacts on the soil resource.

Noise and Vibration

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.12.4	<p>Noise resulting from a proposed development can also have adverse impacts on wildlife and biodiversity. Noise effects of the proposed development on ecological receptors should be assessed by the Secretary of State in accordance with the Biodiversity and Geological Conservation section of this NPS at Section 5.4. This should consider underwater noise and vibration especially for marine developments. Underwater noise can be a significant issue in the marine environment, particularly in regard to energy production.</p>	<p>ES Volume I Chapter 8: Ecology[EN010152/APP/6.1] includes an assessment of the likely impacts and effects on noise relevant ecological features. It is therefore considered that the Scheme is compliant with this policy.</p>
Paragraph 5.12.6	<p>Where noise impacts are likely to arise from the proposed development, the applicant should include the following in the noise assessment:</p> <ul style="list-style-type: none"> • a description of the noise generating aspects of the development proposal leading to noise impacts, including the identification of any distinctive tonal characteristics, if the noise is impulsive, whether the noise contains particular high or low frequency content or any temporal characteristics of the noise • identification of noise sensitive receptors and noise sensitive areas that may be affected • the characteristics of the existing noise environment • a prediction of how the noise environment will change with the proposed development o in the shorter term, such as during the construction period o in the longer term, during the operating life of the infrastructure o at particular times of the day, evening and night (and weekends) as appropriate, and at different times of year • an assessment of the effect of predicted changes in the noise environment on any noise-sensitive receptors, 	<p>ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] presents a noise assessment in accordance with the requirements of this policy, including a description of the noise generating aspects of the development.</p> <p>Section 11.4 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] outlines the noise sensitive locations and premises that have been identified. Noise-sensitive receptors have been identified through a desktop study of aerial imagery and mapping across both the Solar PV Site and Grid Connection Corridor and are presented in ES Volume II Figure 11-1: Noise Sensitive Receptors and Noise Monitoring Locations [EN010152/APP/6.2] and are summarised in ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]. The effect of noise and</p>

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including an assessment of any likely impact on health and quality of life / well-being where appropriate, particularly among those disadvantaged by other factors who are often disproportionately affected by noise-sensitive areas

- if likely to cause disturbance, an assessment of the effect of underwater or subterranean noise
- all reasonable steps taken to mitigate and minimise potential adverse effects on health and quality of life

vibration on these receptors have been considered during the construction, decommissioning and operational phases of the Scheme.

Section 11.6 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]** describes the existing characteristics of the noise environment for the Scheme and surrounding areas. Section 11.7 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]** describes the embedded design mitigation relevant to the Scheme with respect to noise and vibration, encompassing the construction, operational and decommissioning phases.

Section 11.8 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]** assesses the noise and vibration effects on sensitive receptors arising from the construction, decommissioning, and operating life of the infrastructure including at particular times of the day and at night.

The noise assessment is proportionate to the likely noise impact, which would be managed through the **Framework CEMP [EN010152/APP/7. 7]** during construction and would be limited by the nature of the Scheme and very small amount of traffic generated during

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Paragraph 5.12.7	The nature and extent of the noise assessment should be proportionate to the likely noise impact.	<p>operation.</p> <hr/> <p>The noise assessment is proportionate to the likely noise impact, which would be managed through the Framework CEMP [EN010152/APP/7.7] during construction and would be limited by the nature of the Scheme and very small amount of traffic generated during operation.</p>
Paragraph 5.12.8	Applicants should consider the noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation.	<hr/> <p>ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] considers the noise impact of ancillary activities associated with the development, such as increased road and rail traffic movements, or other forms of transportation. It concludes that with the implementation of mitigation measures significant adverse noise and vibration effects during the construction, operation and decommissioning of the Scheme will be avoided at sensitive receptors. Mitigation measures have been embedded into the Scheme design and construction methodology to minimise adverse effects where practicable, as set out in Section 11.7 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]. These include embedded design measures representing Best Practicable Means (BPM) during construction and decommissioning.</p> <p>A hierarchy of mitigation measures is contained within the Framework CEMP</p>

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[EN010152/APP/7.7] which will ensure that significant adverse noise and vibration effects do not occur in the unlikely event of requiring to undertake HDD works at night and will be agreed once the principal contractor for these works is appointed. These measures include avoiding trenchless activities within 200 m of sensitive receptors and the use of temporary acoustic fencing depending on the location, plant and timing of works.

In addition, consideration has been given to traffic routing, timing and access points to the Scheme to minimise noise impacts at existing receptors and the management of construction traffic on the highway network through the **Framework CTMP [EN010152/APP/7.17]**, which will inform a detailed CTMP to be secured through requirement 13 of Schedule 2 in the **draft DCO [EN010152/APP/3.1]**.

Paragraph 5.12.9

Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. Further information on assessment of particular noise sources may be contained in the technology specific NPSs. In particular, for renewables (EN-3) and electricity networks (EN-5) there is assessment guidance for specific features of those technologies. For the prediction, assessment and management of construction noise, reference should be

ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] assesses operational noise at the identified sensitive noise receptors following BS 4142 guidance, BS 8233:2014 and World Health Organisation guidance. Construction and decommissioning noise and vibration impacts have been assessed in line with Annex E of British Standards 5228-1.

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	made to any relevant British Standards 260 and other guidance which also give examples of mitigation strategies.	
Paragraph 5.12.12	Applicants should submit a detailed impact assessment and mitigation plan as part of any development plan, including the use of noise mitigation and noise abatement technologies during construction and operation	ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] provides a detailed impact assessment and mitigation plan for noise and vibration impacts.
Paragraph 5.12.13	The Secretary of State should consider whether mitigation measures are needed both for operational and construction noise over and above any which may form part of the project application. In doing so the Secretary of State may wish to impose mitigation measures. Any such mitigation measures should take account of the NPPF or any successor to it and the Planning Practice Guidance on Noise.	Section 11.7 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] details the embedded mitigation measures that have been embedded into the Scheme design and construction methodology to minimise adverse effects where practicable. These include design measures representing Best Practicable Means (BPM) during construction and decommissioning, the consideration of plant selection, layout of the Solar PV Site, including locating and orienting noise generating infrastructure in a sensitive manner to minimise operational noise at sensitive receptors.
Paragraph 5.12.14	Mitigation measures may include one or more of the following: <ul style="list-style-type: none"> • engineering: reducing the noise generated at source and/or containing the noise generated • lay-out: where possible, optimising the distance between the source and noise sensitive receptors and/or incorporating good design to minimise noise transmission through the use of screening by natural or purpose-built barriers, or other buildings • administrative: using planning conditions/obligations to restrict activities allowed on the site at certain times and/or specifying permissible noise limits/ noise levels, differentiating 	Measures also include avoiding trenchless activities within 200 m of sensitive receptors and the use of temporary acoustic fencing depending on the location, plant and timing of works. In addition, consideration has been given to traffic routing, timing and access points to the Scheme to minimise noise impacts at existing receptors

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	<p>as appropriate between different times of day, such as evenings and late at night, and taking into account seasonality of wildlife in nearby designated sites</p> <ul style="list-style-type: none"> insulation: mitigating the impact on areas likely to be affected by noise including through noise insulation when the impact is on a building. 	<p>and the management of construction traffic on the highway network through the Framework CTMP [EN010152/APP/7.17], which will inform a detailed CTMP to be secured through requirement 13 of Schedule 2 in the draft DCO [EN010152/APP/3.1].</p> <p>Section 11.7 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] details the embedded mitigation measures for the operational phase. Embedded mitigation measures that will be applied includes (but is not limited to) consideration of:</p> <ul style="list-style-type: none"> Plant selection accounting for the level of noise emissions; Design layout to minimise noise at receptors, including locating the Field Stations at a distance of greater than 250m from residential properties and BESS Area at a distance of greater than 500m from residential properties
<p>Paragraph 5.12.15</p>	<p>The project should demonstrate good design through selection of the quietest or most acceptable cost-effective plant available; containment of noise within buildings wherever possible, taking into account any other adverse impacts that such containment might cause (e.g. on landscape and visual impacts; optimisation of plant layout to minimise noise emissions; and, where possible, the</p>	<p>The Scheme has demonstrated good design through the inclusion of noise and vibration mitigation measures. Section 11.7 of ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] details the embedded mitigation measures for the operational phase. Embedded mitigation measures that will be</p>

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	use of landscaping, bunds or noise barriers to reduce noise transmission)	applied includes (but is not limited to) consideration of: <ul style="list-style-type: none"> • Plant selection accounting for the level of noise emissions; • Design layout to minimise noise at receptors, including locating the Field Stations at a distance of greater than 250m from residential properties and BESS Area at a distance of greater than 500m from residential properties . <p>ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] sets out an assessment of how the Scheme’s design, which includes embedded mitigation measures, will have an effect on landscape and visual impacts, and sets out any necessary mitigation measures.</p>
Paragraph 5.12.16	A development must be undertaken in accordance with statutory requirements for noise. Due regard must be given to the relevant sections of the Noise Policy Statement for England, the NPPF, and the government’s associated planning guidance on noise.	<p>ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1] considers relevant sections of the Noise Policy Statement, the NPPF, and the government’s associated planning guidance on noise, within its assessment.</p>
Paragraph 5.12.17	The Secretary of State should not grant development consent unless they are satisfied that the proposals will meet the following aims, through the effective management and control of noise: <ul style="list-style-type: none"> • avoid significant adverse impacts on health and quality of life from noise • mitigate and minimise other adverse impacts on health and quality of life from noise 	<p>ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1], concludes that with the implementation of mitigation measures significant adverse noise and vibration effects during the construction and decommissioning of the Scheme will be avoided at sensitive receptors. During operation significant adverse noise effects will</p>

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Paragraph 5.12.18	<p>• where possible, contribute to improvements to health and quality of life through the effective management and control of noise</p> <p>When preparing the Development Consent Order, the Secretary of State should consider including measurable requirements or specifying the mitigation measures to be put in place to ensure that noise levels do not exceed any limits specified in the development consent. These requirements or mitigation measures may apply to the construction, operation, and decommissioning of the energy infrastructure development.</p>	<p>also be avoided at sensitive receptors. The Scheme design and measures to be implemented during all phases of the Scheme’s phasing will minimise adverse effects where practicable, as set out in ES Volume I Chapter 13: Noise and Vibration [EN010152/APP/6.1]. These include design measures representing Best Practicable Means (BPM) during construction and decommissioning, the consideration of plant selection, layout of the Solar PV Site, including locating and orienting noise generating infrastructure in a sensitive manner to minimise operational noise at sensitive receptors.</p> <p>A hierarchy of mitigation measures is contained within the Framework CEMP [EN010152/APP/7.7] which will ensure that significant adverse noise and vibration effects do not occur in the unlikely event of requiring to undertake HDD works at night and will be agreed once the principal contractor for these works is appointed. These measures include avoiding trenchless activities within 200 m of sensitive receptors and the use of temporary acoustic fencing depending on the location, plant and timing of works.</p> <p>In addition, consideration has been given to traffic routing, timing and access points to the Scheme</p>

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		<p>to minimise noise impacts at existing receptors and the management of construction traffic on the highway network through the Framework CTMP [EN010152/APP/7.17], which will inform a detailed CTMP to be secured through requirement 13 of Schedule 2 in the draft DCO [EN010152/APP/3.1].</p> <p>The effect of noise and vibration on nearby sensitive receptors can be minimised through a good communication strategy. Prior to construction works being undertaken, liaison will be undertaken with occupiers of sensitive receptors that may be adversely affected by construction noise and vibration. The communication strategy and noise complaint system will be secured through the DCO as part of the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010145/APP/7.9] submitted alongside the DCO.</p>
Socio-economics Impacts		
Paragraph 5.13.2	Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES (see Section 4.3)	An assessment of these impacts is undertaken in ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] .
Paragraph 5.13.3	The applicant is strongly encouraged to engage with relevant local authorities during early stages of project development so that the applicant can gain a better	The Applicant has engaged with relevant local authorities, as outlined in ES Volume I Chapter 12: Socio-economic and Land Use [EN010152/APP/6.1] .

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	<p>understanding of local or regional issues and opportunities.</p>	
<p>Paragraph 5.13.4</p>	<p>The applicant’s assessment should consider all relevant socio-economic impacts, which may include:</p> <ul style="list-style-type: none"> • the creation of jobs and training opportunities. <p>Applicants may wish to provide information on the sustainability of the jobs created, including where they will help to develop the skills needed for the UK’s transition to Net Zero</p> <ul style="list-style-type: none"> • the contribution to the development of low-carbon industries at the local and regional level as well as nationally • the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities • any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains • effects (positive and negative) on tourism and other uses of the area impacted • the impact of a changing influx of workers during the different construction, operation and decommissioning phases of the energy infrastructure. This could change the local population dynamics and could alter the demand for services and facilities in the settlements nearest to the construction work (including community facilities and physical infrastructure such as energy, water, transport and waste). There could also be effects on social cohesion depending on how populations and service provision change as a result of the development 	<p>ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] provides an assessment of all potential socio-economic impacts of the Scheme, in accordance with this policy.</p>

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	<ul style="list-style-type: none"> • cumulative effects - if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example a potential shortage of construction workers to meet the needs of other industries and major projects within the region 	
Paragraph 5.13.5	Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies	ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] describes the existing socio-economic baseline conditions of the Study Area. The Scheme's compliance with local policies is considered in Appendix B of this Planning Statement.
Paragraph 5.13.6	Socio-economic impacts may be linked to other impacts, for example visual impacts considered in Section 5.10 but may also have an impact on tourism and local businesses. Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain.	<p>ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] concludes that there would be no significant effects in relation to socio-economic and land use impacts.</p> <p>The Applicant is also committing to implementing a Skills, Supply Chain and Employment Plan for the construction of the Scheme which will maximise and pro-actively expand the economic benefits of the Scheme for the local community. A Framework Skills, Supply Chain and Employment Plan (SSCEP) [EN010152/APP/7.15] accompanies the DCO Application. This will be secured by requirement 16 of the DCO (see Schedule 2 of the Draft DCO [EN010152/APP/3.1]), confirming that no part of</p>

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the authorised development shall commence until a full SSCEP has been submitted to and approved by the relevant local planning authority. The SSCEP will need to be substantially in accordance with the **Framework SSCEP [EN010152/APP/7.15]**. The **Framework SSCEP [EN010152/APP/7.15]** sets out delivery mechanisms including the number of apprenticeships funded/taken up, the number of vocational qualifications achieved, the number of schools engaged, and events delivered, increased awareness of careers, measuring the proportion of local workforce employed from the local area, measures to maximise diversity of the workforce, business and networking support and the number/value of contracts secured by local businesses.

The jobs created will be in the renewable energy sector, specifically relating to solar installation, but also electricity transmission. As such, they will contribute to the development of skills needed for the UK's transition to Net Zero by 2050 (as required by the Climate Change Act 2008 (2050 Target Amendment Order) 2019 and described within the Net Zero Strategy: Building Back Greener. The indirect jobs include those created within the supply chain and therefore reflect the opportunities for low carbon industries to contribute to the Scheme.

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Paragraph 5.13.7	Applicants should consider developing accommodation strategies where appropriate, especially during construction and decommissioning phases, that would include the need to provide temporary accommodation for construction workers if required	An accommodation strategy is not proposed for the Scheme as there is considered to be sufficient local supply to facilitate all construction workers.
Paragraph 5.13.8	The Secretary of State should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike	<p>ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] concludes that there would be no significant effects in relation to socio-economic and land use impacts.</p> <p>A Framework Skills, Supply Chain and Employment Plan (FSSCEP) [EN010152/APP/7.15] has been prepared to maximise and pro-actively expand the economic benefits of the Scheme for the local community.</p> <p>The Scheme has been designed to the principles of good design as set out in ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2].</p>
Paragraph 5.13.9	The Secretary of State should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the Secretary of State considers to be both relevant and important to its decision.	ES Volume I Chapter 12: Socio-economics and Land Use [EN010152/APP/6.1] provides an assessment of all potential socio-economic impacts of the Scheme.
Paragraph 5.13.10	The Secretary of State may conclude that limited weight is to be given to assertions of socio-economic impacts	

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	that are not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS	
Paragraph 5.13.11	The Secretary of State should consider any relevant positive provisions the applicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts.	The Scheme provides the following environmental, economic, social and community benefits: Electricity Generation – Over the 40-year lifetime of the Scheme, it would generate enough electricity to power approximately 120,000 homes per annum based on Ofgem data. This is a significant increase in electricity generation with recognition that more electricity generation is needed to meet demand.
Paragraph 5.13.12	The Secretary of State may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted.	Decarbonisation – Based on comparison with Combined Cycle Gas Turbine (CCGT) it is estimated that the solar power generation and the BESS Area will save over 4 million tCO ₂ e over the design life of the Scheme. The use of the BESS also provides the opportunity for additional carbon savings, as set out in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] . The overall greenhouse gas impact of the Scheme is therefore significantly beneficial and the Scheme will play a vital part in achieving the rate of transition required by nationally set policy commitments and supporting the trajectory towards net zero.

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Environmental (or Ecological) Benefits – The Scheme would provide a number of environmental and ecological enhancements and has been designed to avoid key nature conservation and ecological features present within or adjacent to the Order limits. These measures are set out in the **Framework LEMP [EN010152/APP/7.14]**. In addition to avoidance measures, existing vegetation and habitats will be retained and enhanced, to protect existing wildlife corridors and retain and improve connectivity and valuable habitats.

Economic Benefits - The Scheme will support, on average, 225 total net jobs per annum. Of these, 102 jobs per annum are expected to be taken up by residents within a 60-minute drive time area.

The Applicant is also committing to implementing a Skills, Supply Chain and Employment Plan for the construction of the Scheme which will maximise and pro-actively expand the economic benefits of the Scheme for the local community. A **Framework Skills, Supply Chain and Employment Plan (SSCEP) [EN010152/APP/7.15]** accompanies the DCO Application. This will be secured by requirement 16 of the DCO (see Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**), confirming that no part of

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the authorised development shall commence until a full SSCEP has been submitted to and approved by the relevant local planning authority. The SSCEP will need to be substantially in accordance with the **Framework SSCEP [EN010152/APP/7.15]**. The **Framework SSCEP [EN010152/APP/7.15]** sets out delivery mechanisms including the number of apprenticeships funded/taken up, the number of vocational qualifications achieved, the number of schools engaged, and events delivered, increased awareness of careers, measuring the proportion of local workforce employed from the local area, measures to maximise diversity of the workforce, business and networking support and the number/value of contracts secured by local businesses.

The jobs created will be in the renewable energy sector, specifically relating to solar installation, but also electricity transmission. As such, they will contribute to the development of skills needed for the UK's transition to Net Zero by 2050 (as required by the Climate Change Act 2008 (2050 Target Amendment Order) 2019 and described within the Net Zero Strategy: Building Back Greener . The indirect jobs include those created within the supply chain and therefore reflect the opportunities for low carbon industries to contribute to the Scheme.

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Traffic and Transport		
Paragraph 5.14.5	If a project is likely to have significant transport implications, the applicant's ES (see Section 4.3) should include a transport appraisal. The DfT's Transport Analysis Guidance (TAG)263 and Welsh Governments WelTAG264 provides guidance on modelling and assessing the impacts of transport schemes	ES Volume III Appendix 13-4 [EN010152/APP/6.3] contains a Transport Assessment that has been prepared in accordance with appropriate guidance including the Department for Transport's guidance on Travel Plans, Transport Assessments and Statements in Decision Taking (2014). The applicant has consulted with the relevant Highways Authorities regarding the assessment. Comments from these stakeholders are included in Section 13.5 of ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1] .
Paragraph 5.14.6	National Highways and Highways Authorities are statutory consultees on SNIP applications including energy infrastructure where it is expected to affect the strategic road network and / or have an impact on the local road network, and applicants should consult with National Highways and Highways Authorities as appropriate on the assessment and mitigation to inform the application to be submitted.	A Transport Assessment ES Volume III Appendix 13-2 [EN010152/APP/6.2] has been submitted following consultation with the relevant Highways Authorities.
Paragraph 5.14.7	The applicant should prepare a travel plan including demand management and monitoring measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by active, public and shared transport to: <ul style="list-style-type: none"> • reduce the need for parking associated with the proposal; 	A Framework CTMP [EN01012/APP/7.17] has been prepared to mitigate transport impacts and includes measures to support and encourage a modal shift to more sustainable alternatives. ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1] considers any possible disruption to services and infrastructure.

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	<ul style="list-style-type: none"> • contribute to decarbonisation of the transport network; and • Improve user travel options by offering genuine modal choice 	
Paragraph 5.14.8	The assessment should also consider any possible disruption to services and infrastructure (such as road, rail and airports).	
Paragraph 5.14.9	If additional transport infrastructure is needed or proposed, it should always include good quality walking, wheeling and cycle routes, and associated facilities (changing/storage etc) needed to enhance active transport provision	Additional transport infrastructure required as part of the Scheme comprises site access improvements.
Paragraph 5.14.11	<p>Where mitigation is needed, possible demand management measures must be considered. This could include identifying opportunities to:</p> <ul style="list-style-type: none"> • reduce the need to travel by consolidating trips, • locate development in areas already accessible by active travel and public transport, • provide opportunities for shared mobility, • re-mode by shifting travel to a sustainable mode that is more beneficial to the network, • retime travel outside of the known peak times, • reroute to use parts of the network that are less busy 	<p>As outlined in ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1] and the Framework CTMP [EN010152/APP/7.17] the Scheme would undertake the following measures to support and encourage a modal shift to more sustainable alternatives:</p> <ul style="list-style-type: none"> • Construction staff (e.g. non-HGV vehicles) will be directed to take the most direct route to the Scheme using 'higher' order roads, such as A and B classified roads or the SRN;
Paragraph 5.14.12	All stages of the project should support and encourage a modal shift of freight from road to more environmentally sustainable alternatives, such as rail, cargo bike, maritime and inland waterways, as well as making appropriate	<ul style="list-style-type: none"> • Encouraging local construction workers to car share to reduce single occupancy car trips. This will promote the benefits of car sharing, such as reduced fuel costs. A car share

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	<p>provision for and infrastructure needed to support the use of alternative fuels including charging for electric vehicles</p>	<p>system will be implemented to match potential sharers and to help staff identify any colleagues who could potentially be collected along their route to/from the Scheme;</p> <ul style="list-style-type: none"> Implementing a shuttle bus service to transfer non-local workers to/from local worker accommodation or pick-up locations (assumed minibus capacity of 25), to reduce vehicle trips on the surrounding highway network; Providing on-site car and cycle parking to accommodate the expected parking demand of workers for the Scheme.
<p>Paragraph 5.14.13</p>	<p>Regard should always be given to the needs of freight at all stages in the construction and operation of the development including the need to provide appropriate facilities for HGV drivers as appropriate</p>	<p>As set out in ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1] based on the preliminary construction material and equipment requirements, it is anticipated that as a worst case there could be up to a total of 18 HGV deliveries per day (including waste movements) during construction. This results in 36 HGV two-way movements (18 in and 18 out) per day at peak construction. This allows for the delivery of all components of the Scheme, including the delivery of concrete blocks for the solar PV panels in areas of archaeological mitigation where required. All HGVs will enter the Solar PV Site via the main site access off Moss Road.</p>
<p>Paragraph 5.14.14</p>	<p>The Secretary of State may attach requirements to a consent where there is likely to be substantial HGV traffic that:</p> <ul style="list-style-type: none"> control numbers of HGV movements to and from the site in a specified period during its construction and possibly on the routing of such movements make sufficient provision for HGV parking, and associated high quality drive facilities either on the site or at dedicated facilities elsewhere, to support driver welfare, avoid ‘overspill’ parking on public roads, prolonged queuing on approach roads and uncontrolled on-street HGV parking in normal operating conditions 	

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- ensure satisfactory arrangements for reasonably foreseeable abnormal disruption, in consultation with network providers and the responsible police force

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During operation and maintenance, there should be no requirement for regular HGV movements. Limited use of HGVs will be required for the replacement of batteries, inverters and transformers associated with the Field Stations and the BESS. It has been assumed that during the replacement activity up to five pieces of equipment will be replaced per day (equating to 10 two-way HGV movements) over a period of several months, every ten years during operation.

A **Framework CTMP [EN010153/APP/7.17]** has been prepared to mitigate transport impacts, including controlling HGV movements to and from the site, as well as providing sufficient provision for HGV parking and reduce the volume of construction staff and employee trips to the Scheme. Measures to be implemented during the operation and maintenance phase include:

- Restriction of HGV movements to certain times of day (between 9:00 and 17:00) and to the SRN and other 'higher' order roads where applicable, noting that HGV movements are anticipated to be low across the 40-year operation and maintenance phase;
- Routing of HGVs and AILs in accordance with the findings of the routeing review for large

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>vehicles as set out in the Framework CTMP [EN010152/APP/7.17];</p> <ul style="list-style-type: none"> Restricting HGV movements to certain routes: Moss Road, Strategic Road Network (SRN), A19; <p>Directing construction staff (e.g. non-HGV vehicles) to take the most direct route to the Scheme using 'higher' order roads, such as A and B classified roads of the SRN;</p>
Paragraph 5.14.15	The Secretary of State should have regard to the cost-effectiveness of demand management measures compared to new transport infrastructure, as well as the aim to secure more sustainable patterns of transport development when considering mitigation measures.	<p>The Transport Assessment, ES Volume III Appendix 13-4 [EN010152/APP/6.3] and Framework CTMP [EN010152/APP/7.17] outline measures proposed to mitigate the traffic and transport impacts of the Scheme. The Framework CTMP will be developed into a CTMP prior to commencement and will be secured by the DCO</p>
Paragraph 5.14.18	A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the Secretary of State should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development and by enhancing active, public and shared transport provision and accessibility.	<p>The assessment of effects in ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1] concludes that, following the implementation of mitigation measures, potentially significant adverse effects at road links 9 (Moss Road – Askern Village), 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss), 13 (Marsh Road) and 14 (Thorpe Bank) remain – all relating to increase in traffic and some also with regard to</p>
Paragraph 5.14.20	Development consent should not be withheld provided that the applicant is willing to enter into planning obligations for funding new infrastructure or requirements	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.14.21	<p>can be imposed to mitigate transport impacts. In this situation the Secretary of State should apply appropriately limited weight to residual effects on the surrounding transport infrastructure</p> <p>The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision.</p>	<p>severance and driver delay and effects on NMUs . However, the routes currently experience low baseline traffic numbers which is the reason for the higher percentage increase in traffic and, therefore, the overall impact is not deemed significant with regard to increase in traffic. In addition, effects are temporary in nature and not due to a lack of capacity on the road network. During operation, traffic generation will be negligible.</p> <p>In line with the policy requirements set out in NPS EN-3 in respect of PRoW, access to all existing PRoW will be retained during construction, with only a very limited number of PRoW diversions necessitated by the Scheme. During the Scheme operation, the existing PRoW passing through or running adjacent to the Order limits are expected to be unaffected, aside from Sykehouse 29, Moss 6 and Fenwick 14 that will be permanently diverted.</p> <p>Mitigation measures will be implemented to minimise the traffic impacts of the Scheme on the highway network during the construction and decommissioning phases. These measures are secured through management plans which are requirements of Schedule 2 in the draft DCO [EN010152/APP/3.1] and will need to be</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
		<p>substantially in accordance with the Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17], as well as the Framework CEMP [EN010152/APP/7.7] for the construction phase, and the Framework DEMP [EN010152/APP/7.9] for the decommissioning phase.</p> <p>The impact the Scheme will have on the highways will be temporary and localised and does not result in severe highway impacts or are because of a lack of capacity on the road network. In accordance with paragraph 5.14.21 of NPS EN-1 this short-term adverse residual impact is not sufficient grounds in which to refuse consent given the urgent CNP for solar infrastructure.</p> <p>Overall, the Scheme will not have an unacceptable or severe impact on highway safety.</p>

Resource and Waste Management

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 residual waste.	The Scheme has been designed and will be constructed and operated to minimise the creation of waste, maximise the use of recycled materials and assist the collection, separation, sorting, recycling and recovery of waste arising from the development during its use.
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	ES Volume I Chapter 14.8: Materials and Waste [EN010152/APP/6.1] has been prepared to

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.15.9	The arrangements described and a report setting out the sustainable management of waste and use of resources should include 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	assess the likely significant effects from materials and waste, and as a result from the proposed Scheme. It also identifies and proposes measures to address the potential impacts of the Scheme on materials and waste. Such embedded mitigation measures will be secured through the Framework CEMP [EN010152/APP/7.7] , Framework OEMP [EN010152/APP/7.8] , and Framework DEMP [EN010152/APP/7.9] .
Paragraph 5.15.10	The applicant is encouraged to refer to the ‘Waste Prevention Programme for England’, ‘Maximising Resources Minimising Waste’ 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.	Section 14.7 of ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1] summarises the likely effects of the proposed Scheme on the amount of waste generated from the Site.
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	Section 14.6 of ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1] sets out measures embedded into the design and layout of the Scheme to reduce the impact on waste. During the construction phase, the Scheme will follow DEFRA’s Waste Hierarchy guidance, which aims to prioritise waste prevention, followed by preparing for reuse, recycling, other recovery and as a last resort, disposal.
Paragraph 5.15.13	Applicants are also encouraged to use construction best practices in relation to 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	

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<p>materials used in construction can help to reduce waste in future decommissioning of facilities, by identifying materials that can be recycled or reused</p>	<p>A Framework CEMP [EN010152/APP/7.7] and Framework SWMP [EN010152/APP/7.18] are included alongside the ES which set out:</p> <ul style="list-style-type: none"> • The waste streams that will be generated; • How the waste hierarchy will be applied to these wastes; • Good practice measures for managing waste; and • Roles and responsibilities for waste management. <p>With the incorporation of mitigation measures, no waste significant effects have been identified in relation to the proposed Scheme.</p> <p>During decommissioning, the Scheme will be subject to measures and procedures defined within a DEMP as secured through the DCO. A Framework DEMP [EN010142/APP/7.9] is submitted with the DCO application.</p>
<p>Paragraph 5.15.14</p>	<p>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.</p>	<p>Potential sources of waste associated with the Scheme are outlined in Section 14.8 of ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1].</p> <p>The Applicant would demonstrate that processes</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.15.15	<p>The Secretary of State should be satisfied that:</p> <ul style="list-style-type: none"> • 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 existing waste management facilities to deal with other waste arisings in the area. • 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 	<p>are in place to meet relevant Environmental Permit (EP) requirements, should an EP regime relating to hazardous or non-hazardous waste be required for the Scheme. The Consents and Agreements Position Statement [EN010142/APP/3.3] sets out information on additional consents and licenses that are or may be needed to construct and operated the Scheme.</p> <p>The Scheme has been designed and will be constructed and operated to minimise the creation of waste, maximise the use of recycled materials and assist the collection, separation, sorting, recycling and recovery of waste arising from the development during its use.</p> <p>ES Volume I Chapter 14.8: Materials and Waste [EN010152/APP/6.1] has been prepared to assess the likely significant effects from materials and waste, and as a result from the proposed Scheme. It also identifies and proposes measures to address the potential impacts of the Scheme on materials and waste. Such embedded mitigation measures will be secured through the Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8], and Framework DEMP [EN010152/APP/7.9].</p> <p>Section 14.7 of ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1]</p>
Paragraph 5.15.16	<p>Where necessary, the Secretary of State should use requirements or obligations to ensure that appropriate measures for waste management are applied.</p>	
Paragraph 5.15.17	<p>The Secretary of State may wish to include a condition on revision of waste management plans at reasonable intervals when giving consent.</p>	
Paragraph 5.15.19	<p>The Secretary of State should have regard to any potential impacts on the achievement of resource</p>	

**NPS EN-1
Relevant Paragraph**

**NPS EN-1
Detail**

efficiency and waste reduction targets set under the Environment Act 2021 or wider goals set out in the government's Environmental Improvement Plan 2023.

**NPS EN-1
Proposed Development compliance**

summarises the likely effects of the proposed Scheme on the amount of waste generated from the Site.

Section 14.6 of **ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1]** sets out measures embedded into the design and layout of the Scheme to reduce the impact on waste. During the construction phase, the Scheme will follow DEFRA's Waste Hierarchy guidance, which aims to prioritise waste prevention, followed by preparing for reuse, recycling, other recovery and as a last resort, disposal.

A **Framework CEMP [EN010152/APP/7.7]** and **Framework SWMP [EN010152/APP/7.18]** are included alongside the ES which set out:

- The waste streams that will be generated;
- How the waste hierarchy will be applied to these wastes;
- Good practice measures for managing waste; and
- Roles and responsibilities for waste management.

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Water Quality and Resources		
Paragraph 5.16.3	Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment, and how this might change due to the impact of climate change on rainfall patterns and consequently water availability across the water environment, as part of the ES or equivalent (see Section 4.3 and 4.10)	ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents an assessment of the likely significant effects on the water environment including surface water features such as rivers, streams, ditches, lakes, groundwater assets, and demand for water resources, taking into account impacts from climate change.
Paragraph 5.16.4	The applicant should make early contact with the relevant regulators, including the local authority, the Environment Agency and Marine Management Organisation, where appropriate, for relevant licensing and environmental permitting requirements.	Section 9.6 of ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] details that engagement has been undertaken with the Environment Agency and relevant regulators.
Paragraph 5.16.5	Where possible, applicants are encouraged to manage surface water during construction by treating surface water runoff from exposed topsoil prior to discharging and	The implementation of embedded mitigation measures and good practice control measures during the construction of the Scheme will be

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
Paragraph 5.16.6	<p>to limit the discharge of suspended solids e.g. from car parks or other areas of hard standing, during operation</p> <p>Applicants are encouraged to consider protective measures to control the risk of pollution to groundwater beyond those outlined in River Basin Management Plans and Groundwater Protection Zones - this could include, for example, the use of protective barriers</p>	<p>secured via a detailed CEMP which is to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7], and a Drainage Strategy, which is to be substantially in accordance with the Outline Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]).</p> <p>A Water Management Plan (WMP) (which will be produced post consent) will include details for water quality monitoring and pollution prevention and control. The WMP will be a management plan that is brought forward as part of the detailed CEMP to be secured by a requirement of the DCO and to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7].</p>
Paragraph 5.16.7	<p>The ES should in particular describe:</p> <ul style="list-style-type: none"> • the existing quality of waters affected by the proposed project and the impacts of the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges • existing water resources affected by the proposed project and the impacts of the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and reference to Abstraction Licensing Strategies) and also demonstrate how proposals minimise the use of water resources and water consumption in the first instance 	<p>An assessment of the baseline is provided in Section 9.7 of ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] and demonstrates compliance with this policy. The impacts of climate change and cumulative effects are considered in ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1].</p> <p>A Water Framework Directive (WFD) Assessment is presented in ES Volume III Appendix 9-2 [EN010152/APP/6.3] and assesses the impacts of the Scheme on water bodies or protected areas under the WFD.</p>

NPS EN-1 Relevant Paragraph	NPS EN-1 Detail	NPS EN-1 Proposed Development compliance
	<ul style="list-style-type: none"> • existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics • any impacts of the proposed project on water bodies or protected areas (including shellfish protected areas) under the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 and source protection zones (SPZs) around potable groundwater abstractions • how climate change could impact any of the above in the future • any cumulative effects 	
Paragraph 5.16.8	The Secretary of State should consider whether mitigation measures are needed over and above any which may form part of the project application. A construction management plan may help codify mitigation at that stage	Mitigation measures during the construction phase of the Scheme will be according to good practice and implemented through the Framework CEMP [EN010152/APP/7.7] .
Paragraph 5.16.16	The Secretary of State should consider proposals to mitigate adverse effects on the water environment and any enhancement measures put forward by the applicant and whether appropriate requirements should be attached to any development consent and/or planning obligations are necessary.	ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] sets out the measures propped to mitigate adverse effects on the water environment.

NPS EN-3 Renewable Energy Infrastructure

NPS EN-3 Relevant Paragraph

NPS EN-3 Detail

NPS EN-3 Proposed Development compliance

Climate Change Adaption

Paragraph 2.4.11

Solar photovoltaic (PV) sites may also be proposed in low lying exposed sites. For these proposals, applicants should consider, in particular, how plant will be resilient to:

- increased risk of flooding; and
- impact of higher temperatures.

A Flood Risk Assessment (FRA) (ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]) provides an assessment of flood risk to and from the Scheme from all sources of flooding.

The majority of the south and west areas of the Solar PV Site are located within Flood Zone 1, including the BESS Area and On-Site Substation. Areas to the north and east of the Solar PV Site are located within Flood Zone 2 and Flood Zone 3 associated with the River Went and Fleet Drain. Some areas of Flood Zone 3 within the Solar PV Site are shown to be in areas where there is a reduction in risk of flooding from rivers and the sea due to the presence of flood defences. The northern area of the Solar PV Site which is within Flood Zone 3b is proposed for landscaping and ecology mitigation and no infrastructure will be located here.

The BESS Area and On-Site Substation will be located within Flood Zone 1. Some Field Stations will be located within Flood Zone 2 and some

**NPS EN-3
Relevant Paragraph**

**NPS EN-3
Detail**

**NPS EN-3
Proposed Development compliance**

Solar PV Panels will be located within areas of Flood Zone 2 and 3.

The FRA (ES Volume III Appendix 9-3: Flood Risk Assessment [EN010152/APP/6.3]) concludes that during construction and decommissioning, to prevent an increase in flood risk to vulnerable receptors, temporary mitigation measures will be implemented as part of the CEMP and DEMP which are secured by requirements of the DCO (**see Schedule 2 of the Draft DCO [EN010152/APP/3.1]**). The proposed measures are set out in the **Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9]**.

The assessment of flood risk during the operational stage of the Scheme concludes that, with design mitigation, the risk to and from the Scheme at the Solar PV Site from all sources of flooding would be low taking climate change into account. The Scheme has been designed in order to remain operational during times of flood. Design mitigation measures will be secured through the Draft DCO as part of the detailed OEMP to prevent an increase in flood risk to vulnerable receptors from the Scheme and mitigate flood risk to the Scheme. The proposed

**NPS EN-3
Relevant Paragraph**

**NPS EN-3
Detail**

**NPS EN-3
Proposed Development compliance**

measures are set out in the **Framework OEMP [EN010152/APP/7.8]**.

This includes the minimum height of the lowest part of the Solar PVPV P panels being 300 mm above the design flood level. Where panels are located within the Credible Maximum Scenario flood extent, they will be raised 400 mm above the flood level associated with this event. Where Field Stations are located within the Credible Maximum Scenario flood extent, they will be raised 300 mm above the flood level associated with this event. Where On-Site Cables are required above ground (for example, in archaeologically sensitive areas), these will be designed to be fully submersible.

An Emergency Response Plan will be included as part of the detailed CEMP, DEMP and OEMP which will provide details of the response to an impending flood defence breach scenario including an evacuation plan

The On-Site Substation and BESS is also to be bunded to provide additional protection. The height of this bund will be 1.1 m as this is 300 mm above the maximum flood depths during the River Don breach scenario where depths reach up to 0.8 m at the BESS. Any Field Stations

**NPS EN-3
Relevant Paragraph**

**NPS EN-3
Detail**

**NPS EN-3
Proposed Development compliance**

within high surface water flood risk areas will also be raised 300 mm above expected surface water flood level.

Taking into account the embedded and additional mitigation measures, **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** assesses flood risk in EIA terms and concludes that, with mitigation, there are no likely significant adverse effects on surface water, groundwater or flood risk resulting from the construction, and operation and maintenance and decommissioning of the Scheme.

A Framework Drainage Strategy, (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]) has been prepared detailing appropriate surface water drainage management through SuDS proposed as part of the Scheme to avoid increased flood risk from surface water and management of flow paths to ensure the Scheme remains safe throughout its lifetime. In addition, where any Field Stations are located within high surface water flood risk areas, they will be raised 300 mm above the design flood level. A detailed Drainage Strategy which must be in substantial accordance with the Framework Drainage Strategy is secured

**NPS EN-3
 Relevant Paragraph**

**NPS EN-3
 Detail**

**NPS EN-3
 Proposed Development compliance**

through requirement 9 of the **Draft DCO [EN010152/APP/3.1]**.

Good Design

Paragraph 2.5.2

Proposals for renewable energy infrastructure should demonstrate good design, particularly in respect of landscape and visual amenity, opportunities for co-existence/co-location with other marine and terrestrial uses, and in the design of the project to mitigate impacts such as noise and effects on ecology and heritage

As detailed in the **Design and Access Statement [EN010152/APP/7.2]** and Section 6.3 of the Planning Statement, the Scheme delivers good design, being in accordance with the design policies set out in the NPSs that acknowledge the context of any design decisions must reflect the need to efficiently deliver large scale renewable energy infrastructure, and therefore (as recognised in national policy) the extent to which a scheme can contribute to the enhancement of the quality of the local area is limited. The Scheme design does however deliver biodiversity enhancements and proposes a landscape design which is sensitive to its context. The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 (Ref. 3) for large scale solar development. The Scheme will also deliver a high-quality solar development design that has responded to the local and surrounding context in accordance with relevant local planning policies.

Flexibility

Paragraph 2 .6.1

Where details are still to be finalised applicants should explain in the application which elements of the proposal

The applicant wishes to retain flexibility regarding the design detail of certain components of the

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	<p>have yet to be finalised, and the reason why this is the case</p>	<p>Scheme. The extent of flexibility required is described in ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] and set out in the Outline Design Parameters Statement [EN010152/APP/7.4] and Design and Access Statement [EN010152/APP/7.2].</p>
<p>Paragraph 2.6.2</p>	<p>Where flexibility is sought in the consent as a result, applicants should, to the best of their knowledge, assess the likely worst-case environmental, social and economic effects of the proposed development to ensure that the impacts of the project as it may be constructed have been properly assessed</p>	<p>As set out in ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1], the application and EIA has been based on maximum, and if relevant, minimum parameters. To remain in accordance with the EIA Regulations, the parameters have remained as limited as practicable to ensure that the 'likely significant effects' are identified, rather than unrealistically amplified effects, which could be deemed to be unlikely. These parameters have been considered in detail by technical authors in the ES to ensure the realistic worst-case effects of the Scheme have been assessed for each potential receptor. This is of particular importance to maintain flexibility due to the rapid pace of change in solar PV technology.</p>
Need/Principle		
<p>Paragraph 2.10.9</p>	<p>The government has committed to sustained growth in solar capacity to ensure that we are on a pathway that allows us to meet net zero emissions. As such solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector.</p>	<p>This policy confirms the government's commitment to sustained growth in solar capacity and the key role of solar in the government's decarbonisation strategy. As set out in section 5 of the Planning Statement and the Statement of</p>

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.10	Solar also has an important role in delivering the government's goals for greater energy independence and the British Energy Security Strategy states that government expects a five-fold increase in solar deployment by 2035 (up to 70GW). It sets out that government is supportive of solar that is co-located with other functions (for example, agriculture, onshore wind generation, or storage) to maximise the efficiency of land use.	Need [EN010152/APP/7.1] the Scheme, if consented, will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency.
Paragraph 2.10.11	The Powering Up Britain: Energy Security Plan states that government seeks large scale ground-mount solar deployment across the UK, looking for development mainly on brownfield, industrial and low and medium grade agricultural land. It sets out that solar and farming can be complementary, supporting each other financially, environmentally and through shared use of land and encourages deployment of solar technology that delivers environmental benefits, with consideration for ongoing food production or environmental improvement.	
Paragraph 2.10.13	Solar farms are one of the most established renewable electricity technologies in the UK and the cheapest form of electricity generation.	
Paragraph 2.10.14	Solar farms can be built quickly and, coupled with consistent reductions in the cost of materials and improvements in the efficiency of panels ⁷⁴ , large-scale solar is now viable in some cases to deploy subsidy-free.	
Paragraph 2.10.15	Solar farm proposals are currently likely to consist of solar panel arrays, mounting structures, piles, inverters, transformers and cables	Schedule 1 of the draft DCO [EN010152/APP/3.1] sets out the description of the works for which consent is sought. Work No.1

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.16	Associated infrastructure may also be proposed and may be treated, on a case by case basis as associated development, such as energy storage, electrolysers associated with the production of low carbon hydrogen, or security arrangements (which may encompass flood defences, fencing, lighting and surveillance).	includes the ground mounted solar photovoltaic (PV) electricity generating station, with a total capacity exceeding 50 megawatts (MW) and export connection to the Existing National Grid Thorpe Marsh Substation, and associated infrastructure.
Paragraph 2.10.17	Along with associated infrastructure, a solar farm requires between 2 to 4 acres for each MW of output. A typical 50MW solar farm will consist of around 100,000 to 150,000 panels and cover between 125 to 200 acres. However, this will vary significantly depending on the site, with some being larger and some being smaller. This is also expected to change over time as the technology continues to evolve to become more efficient. Nevertheless, this scale of development will inevitably have impacts, particularly if sited in rural areas.	The site selection process included an assumption in favoured of a contiguous site to allow the development of a cohesive design, and to derive a site that was sufficient to reflect the power output reflective of the Bilateral Connection Agreement with National Grid (as set out in the Grid Connection Statement [EN010152/APP/7.5]). The selected Solar PV Site allowed for the required number of panels, considering site buffers and recommended spacing between panel arrays as set out in paragraphs 2.10.50 – 2.10.58 of NPS EN-3 (Ref. 3). The Scheme design also falls within the range described in paragraph 2.10.17 of NPS EN-3.
Paragraph 2.10.18	The key considerations involved in the siting of a solar farm are likely to be influenced by factors set out in the following paragraphs, in addition to considerations specific to individual projects.	ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2] set out the key considerations involved in the siting of the Scheme.

Irradiance and site Topography

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.19	Irradiance will be a key consideration for the applicant in identifying a potential site as the amount of electricity generated on site is directly affected by irradiance levels. Irradiance of a site will in turn be affected by surrounding topography, with an uncovered or exposed site of good elevation and favourable south-facing aspect more likely to increase year-round irradiance levels. This in turn affects the carbon emission savings and the commercial viability of the site.	The location of the Scheme was chosen partly because the characteristics of the land in this part of Doncaster are optimal for the generation of renewable energy by solar PV. The land at this location has good levels of irradiation and large areas of flat land. The Order limits have been located within an area of relatively low lying and flat landscape to maximise generation of energy and irradiance.
Paragraph 2.10.20	In order to maximise irradiance, applicants may choose a site and design its layout with variable and diverse panel types and aspects, and panel arrays may also follow the movement of the sun in order to further maximise the solar resource.	Due to the fast evolving pace of solar PV technology, the Scheme allowed flexibility to be able to choose specific technology closer to the construction within the parameters defined in the draft DCO [EN010152/APP/3.1] and the Outline Design Parameters Statement [EN010152/APP/7.4] . They will enable the optimum production of renewable energy within the Scheme.
Network Connection		
Paragraph 2.10.21	Applicants should consider important issues relating to network connection at Section 4.11 of EN-1 and in EN-5. In particular, and where appropriate, applicants should proceed in a manner consistent with the regulatory regime for offshore transmission networks established by Ofgem, details of which are set out in EN-5.	The Applicant was aware of the legacy of coal fired power stations in the Yorkshire region and undertook a search of available capacity within these areas. This was in the context that many coal fired power stations were being dismantled which would free up connection to the national electricity transmission system (NETS). Following discussions with National Grid, the Applicant
Paragraph 2.10.22	Many solar farms are connected into the local distribution network. The capacity of the local grid network to accept	

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	the likely output from a proposed solar farm is critical to the technical and commercial feasibility of a development proposal.	identified available capacity at the Existing National Grid Thorpe Marsh Substation and subsequently secured a Point of Connection (POC). The Point of Connection is shown on ES Volume II Figure 3-1: Point of Connection [EN010152/APP/6.2] .
Paragraph 2.10.25	To maximise existing grid infrastructure, minimise disruption to existing local community infrastructure or biodiversity and reduce overall costs applicants may choose a site based on nearby available grid export capacity.	
Paragraph 2.10.26	Where this is the case, applicants should consider the cumulative impacts of situating a solar farm in proximity to other energy generating stations and infrastructure.	<p>The Applicant received a grid connection offer from National Grid Electricity System Operator Limited (NGESO) to connect the Scheme to the National Electricity Transmission System (NETS) at the National Grid Thorpe Marsh Substation in South Yorkshire. NGET have confirmed that a bay within the National Grid Thorpe Marsh Substation will be made available. Further details are set out in the Grid Connection Statement [EN010152/APP/.5].</p> <p>ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] and the Grid Connection Statement [EN010152/APP/7.5] provides further discussion on the process of securing the agreed network connection.</p> <p>The cumulative impact of the Scheme and developments within the surrounding area is</p>

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included in the respective chapters of the ES, and is summarised in **ES Volume I Chapter 15: Cumulative Effects and Interactions [EN010152/APP/6.1]**.

Proximity to Dwellings

Paragraph 2.10.27

Utility-scale solar farms are large sites that may have a significant zone of visual influence. The two main impact issues that determine distances to sensitive receptors are therefore likely to be visual amenity and glint and glare. These are considered in Landscape, Visual and Residential Amenity (paragraphs 2.10.84- 2.10.92) and Glint and Glare (paragraphs 2.10.93 – 2.10.97) impact sections below

ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] assesses the visual impact of the Scheme. Through consultation with the relevant stakeholders, 37 viewpoints were selected to demonstrate different receptors.,. The **Representative Viewpoint Locations** are illustrated in **ES Volume II Figure 10-9 [EN010152/APP/6.2]**.

The design mitigation which is outlined in section 10.7 of **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]**; the **Framework LEMP [EN010152/APP/7.14]** and the **Design and Access Statement [EN010152/APP/7.2]** includes, but is not limited to, offsets from settlements and PRowS, buffers between residential properties and other solar schemes in the locality and creation of new green infrastructure elements and corridors throughout the Scheme, which has aimed to reduce visual impacts.

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In **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** significant adverse effects are identified on a number of visual receptors during construction (2028-2030) and decommissioning (2070) however these effects would be short-term and temporary.

The assessment concludes that, with the mitigation and additional enhancement measures discussed above, at operational Year 1 (2031), the following visual receptors will experience significant adverse effects:

- Users of PRoW within the Solar PV Site
- Residents to the north of Lawn Lane
- Residents of Lilac Cottage, Jet Hall Farm, Sunrise Cottage and the Old School
- Residents of West End Cottage and South Fork
- Users of PRoW along the River Went to the north of the Solar PV Site
- Users of PRoW to the immediate south of the Solar PV Site.

All other visual receptors (residential and recreational), including the majority of residents in Fenwick and Moss, would not experience

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significant adverse effects during Year 1 of operation.

By operational Year 15, mitigation planting will be sufficiently mature to reduce the magnitude of visual effects relative to Year 1 for the majority of visual receptors, such that these are no longer significant, with the exception of the following:

- People walking on PRow within the Solar PV Site (during winter and summer): close and open views of solar PV panels within some fields would remain from PRow Fenwick 10, 12, 13, 14, 15, 16, Moss 5 and Sykehouse 29;
- Users of PRow Fenwick 11 (during winter only), proposed planting along Fenwick Common Drain would filter views of solar PV panels in winter, screening them in summer.
- Residents of Jet Hall Farm (during winter only): hedgerow gapping-up would screen and filter the Solar PV Site from most nearby properties, but visibility of these elements would remain at an oblique angle from upper storey windows of Jet Hall Farm during winter (the effect would be reduced and not significant in summer when vegetation is in leaf).

The use of focussed mature planting has been incorporated into the landscape design. This is in

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the form of 'ready hedges' at an approximate height of 1.5m at time of planting and are proposed in sensitive locations. This will reduce the time between planting during the construction phase and establishment when the planting would provide effective screening, usually at Year 15. The sensitive locations where this additional enhancement will be implemented are detailed in the **Framework Landscape and Ecological Management Plan [EN010152/APP/7.14]**. This additional enhancement measure would not reduce the residual effect experienced by residential receptors at the sensitive locations, but would allow for the screening effects of Year 15 to be delivered sooner.

For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1 (Ref. 2), it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.

Agriculture and Land Classification

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.28	Solar is a highly flexible technology and as such can be deployed on a wide variety of land types.	Agricultural land quality was a key consideration in the Applicant’s site selection process. As set out in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2] . The Applicant has sought to minimise impacts to BMV land by identifying land for the Solar PV Site which avoids BMV land. This involved consideration of the Agricultural Land Classification (ALC) mapping (Ref. 45) and the brownfield land register for the administrative area of the City of Doncaster. Previously developed land of the size required and available for the Scheme was not identified and BMV land identified on the ALC mapping was avoided where possible.
Paragraph 2.10.29	While land type should not be a predominating factor in determining the suitability of the site location applicants should, where possible, utilise suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land (avoiding the use of “Best and Most Versatile” agricultural land where possible). ‘Best and Most Versatile agricultural land is defined as land in grades 1, 2 and 3a of the Agricultural Land Classification.	Following the ALC soil survey of the Solar PV Site, it was confirmed that the majority (88%) of the Solar PV Site is ALC Grade 3b (not BMV land), with 6% comprising of Grade 3a and 1% Grade 2.
Paragraph 2.10.30	Whilst the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land classified 1, 2 and 3a, or sites designated for their natural beauty, or recognised for ecological or archaeological importance, the impacts of such are expected to be considered and are discussed under 2.10.66 – 2.10.83 and 2.10.98 – 2.10.110.	. ES Volume I Chapter 12 Socio-Economic and Land Used [EN010152/APP/6.1] concludes that as less than 1 ha of the land permanently required is BMV land, the effect of the Scheme on the use of BMV agricultural land is negligible and not significant.
Paragraph 2.10.31	It is recognised that at this scale, it is likely that applicants’ developments will use some agricultural land. Applicants should explain their choice of site, noting the preference for development to be on suitable brownfield, industrial and low and medium grade agricultural land.	Based on the Defra Natural England Provisional ALC dataset see ES Volume II Figure 12-4:
Paragraph 2.10.32	Where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation,	

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storage, hydrogen electrolyzers) to maximise the efficiency of land use.

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Predicted Agricultural Land Classification [EN010152/APP/6.2], the Grid Connection Corridor comprises predominantly (82%) ALC Grade 4 land (poor quality agricultural land), with the remaining being Grade 3 land (good to moderate quality agricultural land).

As agreed with City of Doncaster Council, no ALC survey has been undertaken in the Grid Connection Corridor, because there would be no above ground infrastructure in the Grid Connection Corridor and therefore any impacts will be temporary during construction

The construction and decommissioning of the Scheme will be managed through the implementation of a CEMP, DEMP and SMP secured by requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. These will need to be substantially in accordance with the **Framework CEMP [EN010142/APP/7.7]**, **Framework DEMP [EN010142/APP/7.9]** and **Framework SMP [EN010142/APP/7.17]** and implemented in accordance with the approved details. These management measures will ensure that the soil resource is managed and protected to ensure that arable farming can resume post operation of the Scheme.

In summary the Scheme maximises the use of

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Paragraph 2.10.33

The Agricultural Land Classification (ALC) is the only approved system for grading agricultural quality in England and Wales and, if necessary, field surveys should be used to establish the ALC grades in accordance with the current, or any successor to it, grading criteria and identify the soil types to inform soil management at the construction, operation, and decommissioning phases in line with the Defra Construction Code.

poorer quality agricultural land, minimises impacts on best and most versatile agricultural land and includes mitigation measures to reduce impacts on the soil resource.

The impacts of the Scheme on sites designated for their natural beauty, or recognised for ecological or archaeological importance are set out in the relevant chapters of the **ES [EN010152/APP/6.1]**.

Paragraph 2.10.34

Applicants are encouraged to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This should be in line with the ambition set out in the Environmental Improvement Plan to bring at least 40% of England's agricultural soils into sustainable management by 2028 and increase this up to 60% by 2030.

Table 12-17 of ES Volume I Chapter 12: Socio-Economics and Land Use [EN010542/APP/6.1] shows the distribution of Agricultural Land Classification (ALC) Grades within the Solar PV Site, determined by the detailed soil survey presented in **ES Volume II Appendix 12-3: Agricultural Land Classification Baseline Report [EN010145/APP/6.3]**.

The **Framework Soil Management Plan (FSMP) [EN010142/APP/7.10]** has been prepared which includes measures to ensure that soil quality is not degraded during operation. A requirement in the **draft DCO [EN010152/APP/3.1]** will secure the approval of a Soil Management Plan (SMP) that must be substantially in accordance with the Framework SMP and the SMP implemented as approved.

These measures will ensure that the soil

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Paragraph 2.10.145	<p>[Factors influencing site selection and design]</p> <p>The Secretary of State should take into account the economic and other benefits of the best and most versatile agricultural land. The Secretary of State should ensure that the applicant has put forward appropriate mitigation measures to minimise impacts on soils or soil resources.</p>	<p>resource is protected. Similarly, the SMP, to be substantially in accordance with the FSMP [EN010152/APP/7.10] will ensure soil quality is protected during both construction and decommissioning.</p> <p>ES Volume I Chapter 12: Socio-Economics and Land Use[EN010152/APP/6.1] set out how agricultural land was considered in the design of Scheme and the Framework Soils Management Plan [EN010152/APP/7.10] sets out the Scheme’s embedded mitigation measures, and principles on how the soils will be managed and protected during the construction, operation and decommissioning of the Scheme.</p>
Accessibility		
Paragraph 2.10.35	<p>Applicants will need to consider the suitability of the access routes to the proposed site for both the construction and operation of the solar farm with the former likely to raise more issues.</p>	<p>The vehicular access arrangements for the Scheme to be used during both construction and once operational are presented in Section 5.5 of the TA (ES Volume III Appendix 13-4 [EN010152/APP/6.3]). This confirms the use of two access points serving the Solar PV Site from Fenwick Common Lane / Hags Lane or from Moss Road (east of Mos village).</p>
Paragraph 2.10.36	<p>Given that potential solar farm sites are largely in rural areas, access for the delivery of solar arrays and associated infrastructure during construction can be a significant consideration for solar farm siting</p>	<p>The Scheme design incorporates mitigation to reduce adverse effects and minimise impacts.</p>
Paragraph 2.10.37	<p>Developers will usually need to construct on-site access routes for operation and maintenance activities, such as footpaths, earthworks, or landscaping.</p>	

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Paragraph 2.10.38	In addition, sometimes access routes will need to be constructed to connect solar farms to the public road network.	These are set out in section 13.6 of the ES Volume I Chapter 13: Transport and Access
Paragraph 2.10.39	Applications should include the full extent of the access routes necessary for operation and maintenance and an assessment of their effects.	[EN010152/APP/6.1] and Section 10.6 of the associated TA (ES Volume III Appendix 13-4 [EN010152/APP/6.3]) .
		<p>Abnormal indivisible loads during the operation and maintenance phase are not anticipated due to the delivery of a spare transformer during construction that would be stored on site. The TA (ES Volume III Appendix 13-4 [EN010152/APP/6.3]) provides details of the anticipated characteristics of journeys generated by construction of the Scheme including private worker vehicles, tractor-trailer vehicles, Heavy Goods Vehicles (HGVs) and Abnormal Indivisible Loads (AILs). The scope and methodology of the TA have been agreed with the Local Highway Authority (City of Doncaster Council).</p>
		<p>The TA (ES Volume III Appendix 13-4 [EN010152/APP/6.3]) considers the capacity of the network to safely accommodate the proposed construction traffic. It is acknowledged that the greatest impact is likely to occur during the construction and decommissioning phases of the Scheme. During operation and maintenance, the level of activity across the Order limits would be</p>

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minimal and limited to vegetation management (across the Solar PV Site), equipment maintenance and servicing, routine inspections. There would be no requirement for regular HGV or AIL movements, or a need for more than two permanent staff on site at any one time (equating to four additional workers per month), during this phase.

PROW

Paragraph 2.10.40

Proposed developments may affect the provision of public rights of way networks.

ES Volume I Chapter 12: Socio-economic and Land Use [EN010152/APP/6.1] states that

Paragraph 2.10.41

Public rights of way may need to be temporarily closed or diverted to enable construction, however, applicants should keep, as far as is practicable and safe, all public rights of way that cross the proposed development site open during construction and protect users where a public right of way borders or crosses the site.

access to all existing PRow will be retained during construction, with no proposed PRow closures and a limited number of PRow diversions necessitated by the Scheme (Fenwick 16, Fenwick 14, Moss 6, Sykehouse 29). During operation, the existing PRow which pass through or run adjacent to the Order limits would be unaffected, with the exception of Sykehouse 29, Moss 6 and Fenwick which would be permanently diverted. The permanent diversions of these PRow would increase their journey length by minimal distances (less than 50 m) and no significant adverse effects on PRow users are therefore anticipated. The full extent of the proposed PRow diversions is shown in ES Volume II Figure 2-2: Public Rights of Way and

Paragraph 2.10.42

Applicants are encouraged to design the layout and appearance of the site to ensure continued recreational use of public rights of way, where possible during construction, and in particular during operation of the site.

Paragraph 2.10.43

Applicants are encouraged where possible to minimise the visual impacts of the development for those using existing public rights of way, considering the impacts this may have on any other visual amenities in the surrounding landscape.

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.44	Applicants should consider and maximise opportunities to facilitate enhancements to the public rights of way and the inclusion, through site layout and design of access, of new opportunities for the public to access and cross proposed solar development sites (whether via the adoption of new public rights of way or the creation of permissive paths), taking into account where appropriate the views of landowners.	<p>set out in the Framework Public Rights of Way Management Plan [EN010152/APP/7.13].</p> <p>Measures to divert and manage PRow are set out within the Framework PRow Management Plan [EN010152/APP/7.13] submitted alongside the DCO Application.</p> <p>The site selection process carried out to identify the Solar PV Site as described in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] considered the presence of PRow as part of this process to ensure that impacts were minimised.</p>
Paragraph 2.10.45	Applicants should set out detail on how public rights of way would be managed to ensure they are safe to use is set out in an outline Public Rights of Way Management Plan	A Framework Public Rights of Way Management Plan [EN010152/APP/7.13] has been submitted alongside the application which sets out detail on how PRow will be managed to ensure they are safe to use.
Security and Lighting		
Paragraph 2.10.46	Security of the site is a key consideration for developers. Applicants may wish to consider not only the availability of natural defences such as steep gradients, hedging and rivers but also perimeter security measures such as fencing, electronic security, CCTV and lighting, with the measures proposed on a site-specific basis.	ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] outlines the security measures incorporated in the design of the Scheme design. Efforts have been made to reduce the impact of security fencing and lighting, as set out in detail in the Framework LEMP [EN010152/APP/7.14] , Framework CEMP [EN010152/APP/7.7] , Framework OEMP [EN010152/APP/7.8] and Framework DEMP
Paragraph 2.10.47	Applicants should assess the visual impact of these security measures, as well as the impacts on local residents, including for example issues relating to	

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	intrusion from CCTV and light pollution in the vicinity of the site.	
Paragraph 2.10.48	Applicants should consider the need to minimise the impact on the landscape and the visual impact of security measures	[EN010152/APP/7.9] . Final versions of these documents will be produced and secured as part of the DCO.
Technical considerations		
Paragraph 2.10.49	Applications for solar farms are likely to comprise a number of elements including solar panel arrays, piling, inverters, mounting structures, cabling, earthworks, and measures associated with site security, and may also include associated infrastructure such as energy storage and electrolyzers associated with the production of low carbon hydrogen.	The Outline Design Parameters Statement [EN010152/APP/7.4] provides the guiding parameters for the detailed design of the Scheme and will be secured by a requirement in the DCO. This will form the parameters of the detailed design and has fed into Schedule 1 of the draft DCO [EN010152/APP/3.1] where the different components of the Scheme are divided into works which correspond with the work number areas shown on the Works Plans [EN010152/APP/2.2] .
Paragraph 2.10.50	Solar panels generate electricity in direct current (DC) form. A number of panels feed an external inverter, which is used to convert the electricity to alternating current (AC). After inversion a transformer will step-up the voltage for export to the grid. Because the inverter is separate from the panels, the total capacity of a solar farm can be measured either in terms of the combined capacity of installed solar panels (measured in DC) or in terms of combined capacity of installed inverters (measured in AC).	As set out in ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1] the Scheme would comprise Field Station Units which would contain the central inverters, a transformer, and switchgear in a single containerised unit. Within the Field Station Units, the DC electricity collected by the Solar PV Panels is converted into AC (by an inverter). The voltage is increased from low voltage (less than 1.0 kV AC) to 33 kV (by a transformer) and then exits through the high voltage (HV) switchgear into the On-Site Cables (33 kV) connecting to the On-Site Substation.
Paragraph 2.10.51	For the purposes of determining the capacity thresholds in Section 15 of the 2008 Act, all forms of generation	

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	<p>other than solar are currently assessed on an AC basis, while a practice has developed where solar farms are assessed on their DC capacity</p>	
<p>Paragraph 2.10.52</p>	<p>Having reviewed this matter, the Secretary of State is now content that this disparity should end, particularly as electricity from some other forms of generation is switched between DC and AC within a generator before it is measured.</p>	
<p>Paragraph 2.10.53</p>	<p>From the date of designation of this NPS, for the purposes of Section 15 of the Planning Act 2008, the maximum combined capacity of the installed inverters (measured in alternating current (AC)) should be used for the purposes of determining solar site capacity.</p>	<p>The site selection process set out in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] included an assumption in favoured of a contiguous site to allow the development of a cohesive design, and to derive a site that was sufficient to reflect the power output reflective of the Bilateral Connection Agreement with National Grid (as set out in the Grid Connection Statement [EN010152/APP/7.5]). The selected Solar PV Site allowed for the required number of panels, considering site buffers and recommended spacing between panel arrays as set out in paragraphs 2.10.50 – 2.10.58 of NPS EN-3 (Ref. 3).</p>
<p>Paragraph 2.10.55</p>	<p>The installed generating capacity of a solar farm will decline over time in correlation with the reduction in panel array efficiency. There is a range of sources of degradation that developers need to consider when deciding on a solar panel technology to be used. Applicants may account for this by overplanting solar panel arrays.</p>	<p>The indicative design for the Scheme includes an element of overplanting to have regard to the degradation of panels.</p>
<p>Paragraph 2.10.56</p>	<p>AC installed export capacity should not be seen as an appropriate tool to constrain the impacts of a solar farm. Applicants should use other measurements, such as panel size, total area and percentage of ground cover to</p>	<p>ES Volume I Chapter 3: Design Evolution and Alternatives [EN010152/APP/6.1] sets out the evolution of design, and the technology proposed by the Scheme.</p>

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	set the maximum extent of development when determining the planning impacts of an application.	
Site layout design and appearance		
Paragraph 2.10.60	As set out above applicants will consider several factors when considering the design and layout of sites, including, proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land – use and ability to mitigate environmental impacts and flood risk.	As set out in section 6.3 of the Planning Statement [EN010152/APP/7.1] the location and design of the Scheme is the result of a comprehensive site selection process that was environmental, and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.
Paragraph 2.10.61	For a solar farm to generate electricity efficiently the panel array spacing should seek to maximise the potential power output of the site. The type, spacing and aspect of panel arrays will depend on the physical characteristics of the site such as site elevation.	<p>As set out in section 6.3 of the Planning Statement [EN010152/APP/7.1] the location and design of the Scheme is the result of a comprehensive site selection process that was environmental, and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.</p> <p>ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] explains how the Applicant has undertaken site selection and design in a proportionate way, in accordance with paragraphs 2.10.19 to 2.10.48 of NPS EN-3 (Ref. 3). ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1] and Section 6 of the Statement of Need [EN010152/APP/7.3] details how the Scheme meets the technical</p>

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Paragraph 2.10.62

In terms of design and layout, applicants may favour a south-facing arrangement of panels to maximise output although other orientations may be chosen. For example, an east-west layout, whilst likely to result in reduced output compared to south-facing panels on a panel-by-panel basis, may allow for a greater density of panels to compensate and therefore for generation to be spread more evenly throughout the day.

considerations of paragraphs 2.10.49 to 2.10.69 of NPS EN-3 (Ref. 3).

Section 6.3 of the Planning Statement [EN010152/APP/7.1] summarises how the Scheme meets the considerations set out in NPS EN-3 with respect to irradiance and topography, network connection, proximity to dwellings, agricultural land classification. Accessibility, PRow, security and lighting, site capacity, site layout and design, project lifetime and decommissioning.

The site selection process included an assumption in favoured of a contiguous site to allow the development of a cohesive design, and to derive a site that was sufficient to reflect the power output reflective of the Bilateral Connection Agreement with National Grid (as set out in the **Grid Connection Statement [EN010152/APP/7.5]**). The selected Solar PV Site allowed for the required number of panels, considering site buffers and recommended spacing between panel arrays as set out in paragraphs 2.10.50 – 2.10.58 of NPS EN-3 (Ref. 3).

As described in **ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1]** the Scheme would utilise a fixed south facing

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		<p>system. This orientation ensures that the panels will absorb the maximum amount of sunlight as the sun moves from east to west during the course of the day. The panels are tilted to an angle between 10 and 30 degrees from horizontal to maximise the potential energy generation.</p>
<p>Paragraph 2.10.63</p>	<p>It is likely that underground and overhead cabling will be required to connect the electrical assets of the site, such as from the substation to the panel arrays or storage facilities.</p>	<p>As set out in the Grid Connection Statement [EN010152/APP/7.5] the Applicant has secured a connection offer from National Grid Electricity System Operator Limited (NGESO) to connect the Scheme to the National Electricity Transmission System (NETS) at the National Grid Thorpe Marsh Substation in South Yorkshire. NGET have confirmed that a bay within the National Grid Thorpe Marsh Substation will be made available.</p>
<p>Paragraph 2.10.64</p>	<p>In the case of underground cabling, applicants are expected to provide a method statement describing cable trench design, installation methodology, as well as details of the operation and maintenance regime.</p>	<p>The Scheme currently has two options to connect to the NETS at the National Grid Thorpe Marsh Substation. The connection to the NETS will be either via underground cabling along a corridor running for approximately 6.3 kilometres (km) from the Solar PV Site to the Existing National Grid Thorpe Marsh Substation; or via underground cabling between the On-Site Substation and existing overhead power lines within the Solar PV Site, which connect to the Existing National Grid Thorpe Marsh Substation.</p>

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		<p>Should the Grid Connection Line Drop option be feasible (which will be able to be determined after the DCO is granted), this would supersede the requirement for Grid Connection Cables along the Grid Connection Corridor and the cabling for the Grid Connection Line Drop Cables would be confined to the Solar PV Site. In this event, the associated working areas within the Grid Connection Corridor would no longer form part of the Site or Scheme.</p> <p>Further details are included in the Grid Connection Statement [EN010142/APP/7.5] and ES Volume I Chapter 2: Scheme Design [EN010152/APP/6.1].</p>
Project Lifetime and decommissioning		
Paragraph 2.10.66	Time limited consent, where granted, is described as temporary because there is a finite period for which it exists, after which the project would cease to have consent and therefore must seek to extend the period of consent or be decommissioned and removed.	As set out in Section 2.9 of ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1] the design life of the Scheme is 40 years with decommissioning to commence 40 years after final commissioning (currently anticipated to be 2030 to 2070). The technical assessments (ES Volume I Chapters 6 to 14 EN010152/APP/6.1) therefore assume a design life of 40 years.
Paragraph 2.10.65	...An upper limit of 40 years is typical, although applicants may seek consent without a time period or for differing time-periods for operation.	
Paragraph 2.10.69	Such a requirement should also secure the decommissioning of the generating station after the expiration of its permitted operation to ensure that inoperative plant is removed after its operational life Applicants should set out what would be	When the operation and maintenance phase ends, the Solar PV Site would be decommissioned. All Solar PV Panels, mounting piles and concrete blocks, cabling, inverters,

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	decommissioned and removed from the site at the end of the operational life of the generating station, considering instances where it may be less harmful for the ecology of the site to keep or retain certain types of infrastructure, for example underground cabling, and where there may be socio-economic benefits in retaining site infrastructure after the operational life, such as retaining pathways through the site or a site substation.	transformers, switchgear, BESS and the containerised unit of the Operations and Maintenance Hub would be removed from the Solar PV Site and recycled or disposed of in accordance with good practice and market conditions at that time. In areas of archaeological mitigation ground conditions would be considered and mitigation measures put in place (such as bog matting) to limit ground disturbance and rutting during decommissioning activities.
Paragraph 2.10.141	The time limited nature of the solar farm, where a time limit is sought as a condition of consent, is likely to be an important consideration for the Secretary of State.	
Paragraph 3.10.148	The time limited nature of the solar farm, where a time limit is sought as a condition of consent, is likely to be an important consideration for the Secretary of State. Such a requirement should also secure the decommissioning of the generating station after the expiration of its permitted operation to ensure that inoperative plant is removed after its operational life.	Upon decommissioning the Order limits will be returned to landowners in the condition as at the end of operation, including the established habitats. Any impacts to important ecological features present at the time of decommissioning will be mitigated fully in line with relevant legislative and policy requirements. It is anticipated that some areas of habitat and biodiversity mitigation and enhancement within the Solar PV Site may be left in-situ given they could contain protected species and so relevant licences at the time would be obtained for any changes. However, the majority of the Solar PV Site would be available to be returned to its original use after decommissioning.
Paragraph 3.10.151	The Secretary of State should consider the period of time the applicant is seeking to operate the generating station as well as the extent to which the site will return to its original state when assessing impacts such as landscape and visual effects and potential effects on the settings of heritage assets and nationally designated landscapes.	

**A Framework Decommissioning
 Environmental Management Plan (DEMP)**

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Detail**

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[EN010152/APP/7.9] is included with the DCO Application. This sets out the general principles to be followed in the decommissioning phase of the Scheme. A detailed DEMP would be prepared and agreed with the relevant Local Planning Authority (City of Doncaster Council) at that time of decommissioning, in advance of the commencement of decommissioning works, and would include timescales and transportation methods. Production of the detailed DEMP is secured through a requirement attached to the DCO. The detailed DEMP would ensure that decommissioning was undertaken safely and with regard to the environmental legislation at the time of decommissioning, including relevant waste legislation.

Decommissioning is expected to take between 12 and 24 months and would likely be undertaken sequentially.

Flexibility

Paragraph 2.10.70

In many cases, not all aspects of the proposal may have been settled in precise detail at the point of application. Such aspects may include:

- the type, number and dimensions of the panels;
- layout and spacing;
- the type of inverter or transformer; and
- whether storage will be installed (with the option to install further panels as a substitute).

The Applicant wishes to retain flexibility regarding the design detail of certain components of the Scheme. The extent of the flexibility required is described in **ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1]** and set out in the **Outline Design Parameters Statement [EN010152/APP/7.4]** and the **Design and Access Statement [EN010152/APP/7.2]**.

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.71	Applicants should set out a range of options based on different panel numbers, types and layout, with and without storage.	<p>ES Volume I Chapter 5: Environmental Impact Assessment Methodology and Chapter 2: Scheme Description [EN010152/APP/6.1] explain that the parameters for the Scheme are defined by the Outline Design Parameters Statement [EN010152/APP/7.4] which have been informed by the assessments in the ES [EN010152/APP/6.1/6.2/6.3] and reciprocally used for assessment purposes. Where there is uncertainty, the Applicant has assessed the worst case scenario for the purposes of the ES.</p>
Paragraph 2.10.74	Guidance on how applicants should manage flexibility is set out at Section 2.6 of this NPS.	
Biodiversity and Ecological Conservation		
Paragraph 2.10.76	The applicant’s ecological assessments should identify any ecological risk from developing on the proposed site.	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] provides an assessment of the Scheme’s impact on important ecological features and is supported by extensive survey work (see ES Volume III Appendices 8-2 to 8-9 [EN010152/APP/6.3]) to confirm the ecological habitats and species likely to be affected by the Scheme.</p>
Paragraph 2.10.77	Issues that need assessment may include habitats, ground nesting birds, wintering and migratory birds, bats, dormice, reptiles, great crested newts, water voles and badgers	
Paragraph 2.10.78	The applicant should use an advising ecologist during the design process to ensure that adverse impacts are avoided, minimised or mitigated in line with the mitigation hierarchy, and biodiversity enhancements are maximised	<p>ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] identifies ecological risks from developing the Scheme. It has assessed impacts on protected species, habitats, and other species identified as being of principal important for the conservation of</p>
Paragraph 2.10.79	The assessment may be informed by a ‘desk study’ of existing ecological records, an evaluation of the likely impacts of the solar farm upon ecological features and should specify mitigation to avoid or minimise these impacts, and any further surveys required	

**NPS EN-3
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biodiversity. The assessment has been carried out by competent ecologists, who have advised during the design process to ensure that impacts are avoided, minimised and mitigated in line with the mitigation hierarchy, and biodiversity enhancements are maximised.

Section 8.9 of **ES Volume I Chapter 8: Ecology [EN010152/APP/6.1]** sets out the expected effects on the above receptors during construction, operation and decommissioning of the Scheme. It concludes that there are no potential significant adverse effects identified as on any internationally, nationally, or locally designated sites during construction, operation or decommissioning of the Scheme.

The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Ref. 44Ref. 41). A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units..

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.80	Applicants should consider earthworks associated with construction compounds, access roads and cable trenching.	Section 2.5 of ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] describes the works required for construction, including installation of cables which will include earthworks.
Paragraph 2.10.81	Where soil stripping occurs topsoil and subsoil should be stripped, stored, and replaced separately to minimise soil damage and to provide optimal conditions for site restoration. Further details on minimising impacts on soil and soil handling are above at 2.10.18 and 2.10.19.	A Framework Soils Management Plan [EN010152/APP/7.10] sets out the principles on how the soils will be managed and protected during the construction, operation and decommissioning of the Scheme. A detailed soil resource management plan will be prepared prior to construction as secured by DCO Requirement.
Paragraph 2.10.82	Applicants should consider how security and lighting installations may impact on the local ecology. Where pole mounted CCTV facilities are proposed the location of these facilities should be carefully considered to minimise impact. If lighting is necessary, it should be minimised and directed away from areas of likely habitat	Security, lighting and CCTV required for the Scheme are described in detail in ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] , Framework CEMP [EN010152/APP/7.7] , Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] . The Schemes security and lighting have been designed to respond sensitively to ecology and the landscape features.
Paragraph 2.10.83	Applicants should consider how site boundaries are managed. If any hedges/scrub are to be removed, further surveys may be necessary to account for impacts. Buffer strips between perimeter fencing and hedges may be proposed, and the construction and design of any	The Framework LEMP [EN010152/APP/7.14] which will inform a detailed LEMP which will be secured by a requirement in the DCO sets out measures to manage site boundaries which includes. Buffers to woodland and hedgerow,

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	fencing should account for enabling mammal, reptile and other fauna access into the site if required to do so in the ecological report	and proposals for fencing incorporate features to enable the movement of mammals, reptiles and other fauna. These measures and an assessment of effects on mammal, reptile and other fauna are set out in ES Volume I Chapter 8: Ecology and Nature Conservation of the ES [EN010152/APP/6.1] .
Paragraph 2.10.89	Solar farms have the potential to increase the biodiversity value of a site, especially if the land was previously intensively managed. In some instances, this can result in significant benefits and enhancements beyond Biodiversity Net Gain, which result in wider environmental gains which is encouraged.	The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Ref. 44). A Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11] has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units.
Paragraph 2.10.90	For projects in England, applicants should consider enhancement, management, and monitoring of biodiversity in line with the ambition set out in the Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere.	
Paragraph 2.10.128	In England, proposed enhancements should take account of the above factors and as set out in Section 4.6 and 5.5 of EN-1 aim to achieve environmental and biodiversity net gain in line with the ambition set out in the Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere	
Paragraph 2.10.129	This might include maintaining or extending existing habitats and potentially creating new important habitats, for example by installing cultivated strips/plots for rare	The Scheme includes measures to extend existing habitats and create new important habitats. These are set out in the Framework

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	arable plants, rough grassland margins, bumble bee plant mixes, and wild bird seed mixes.	LEMP [EN010152/APP/7.14].
Paragraph 2.10.130	Applicants are advised to develop an ecological monitoring programme to monitor impacts upon the flora of the site and upon any particular ecological receptors (such as bats and wintering birds). Results of the monitoring will then inform any changes needed to the land management of the site, including, if appropriate, any livestock grazing regime.	Appropriate monitoring will be undertaken during construction and operation as set out in the Framework LEMP [EN010152/APP/7.14], Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9].
Drainage		
Paragraph 2.10.84	Where a Flood Risk Assessment has been carried out this must be submitted alongside the applicant's ES. This will need to consider the impact of drainage. As solar PV panels will drain to the existing ground, the impact will not, in general, be significant.	A FRA is provided at ES Volume III Appendix 9-3 [EN010152/APP/6.3] that considers the impacts of drainage. Through appropriate management of construction and decommissioning activities the Scheme will have no significant adverse effects on water environment receptors during these phases.
Paragraph 2.10.85	Where access tracks need to be provided, permeable tracks should be used, and localised Sustainable Drainage Systems (SuDS), such as swales and infiltration trenches, should be used to control any runoff where recommended.	Impacts on surface or groundwater quality from site run-off and the potential for accidental spillages during construction, operation, maintenance and decommissioning activities will be controlled through the implementation of the detailed CEMP, OEMP and DEMP. These will be substantially in accordance with the Framework CEMP [EN010152/APP/7.7], the Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] submitted as part of this DCO Application.
Paragraph 2.10.86	Given the temporary nature of solar PV farms, sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses.	
Paragraph 2.10.87	Culverting existing watercourses/drainage ditches should be avoided.	
Paragraph 2.10.88	Where culverting for access is unavoidable, applicants should demonstrate that no reasonable alternatives exist	

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and where necessary it will only be in place temporarily for the construction period.

During operation, within the area of solar PV panels, the impermeable area will remain largely consistent with its pre-development state as solar PV panels are elevated above ground and rainfall will run off them to the ground as it does now. Channelisation from rainfall dripping off the end of solar PV panels will be mitigated for through the planting of native grassland under and surrounding the panels. This planting will intercept and absorb rainfall running off the solar PV panels, preventing it from concentrating and potentially forming channels in the ground. The inclusion of swales as part of the overall Sustainable Drainage Systems (SuDS), will control the rate of flow from new impermeable areas in the BESS Area and On-Site Substation towards the receiving watercourses as well as providing a mechanism to treat any contaminants should this be necessary.

The implementation of a detailed Drainage Strategy, which will need to be in accordance with the **Framework Drainage Strategy (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3])** secured as a requirement in the **draft DCO [EN010152/APP/3.1]**, will ensure that there will be negligible impact to any receiving water feature from surface water runoff or the risk of

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Paragraph 2.10.92	Applicants should consider whether they need to provide geotechnical and hydrological information (such as identifying the presence of peat at each site) including the risk of landslide connected to any development work	Due to the nature of the Scheme, the Applicant does not consider that this information is required.
Paragraph 2.10.154	Water management is a critical component of site design for ground mount solar plants. Where previous management of the site has involved intensive agricultural practice, solar sites can deliver significant ecosystem services value in the form of drainage, flood attenuation, natural wetland habitat, and water quality management.	<p>The implementation of a detailed Drainage Strategy, which will need to be in accordance with the Framework Drainage Strategy (ES Volume III Appendix 9-4: Framework Drainage Strategy [EN010152/APP/6.3]) secured as a requirement in the draft DCO [EN010152/APP/3.1], will ensure that there will be negligible impact to any receiving water feature from surface water runoff or the risk of chemical spillages during routine operation and maintenance.</p> <p>A Water Management Plan (WMP) will include details for water quality monitoring and pollution prevention and control during construction. The WMP will be a management plan that will be brought forward as part of the detailed CEMP secured by requirement 11 of the draft DCO [EN010152/APP/3.1] and to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7]. A Water Management Plan</p>

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will also be required as part of the decommissioning phase and will be secured by requirement 18 of the **draft DCO [EN010152/APP/3.1]** which requires a detailed DEMP.

The removal of the Solar PV Site from arable production and the planting of semi-improved grassland (as set out in **the Framework LEMP [EN010152/APP/7.14]**) will help to ameliorate soil conditions after long-term agricultural practices.

Landscape, Visual and Residential Amenity

Paragraph 2.10.94

The approach to assessing cumulative landscape and visual impact of large-scale solar farms is likely to be the same as assessing other onshore energy infrastructure. Solar farms are likely to be in low lying areas of good exposure and as such may have a wider zone of visual influence than other types of onshore energy infrastructure.

ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] includes an assessment of the potential landscape and visual impacts associated with the construction, operation and decommissioning of the Scheme on local amenity.

Paragraph 2.10.95

However, whilst it may be the case that the development covers a significant surface area, 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 appropriately minimised

The Applicant has undertaken an iterative design process which responds to policy requirements set out in NPS EN-1 and NPS EN-3, published landscape character assessments and fieldwork analysis, in order to minimise harm to the landscape and reduce the visual effects of the Scheme. This has been achieved through a Scheme that is of good design which balances the need to generate a large amount of renewable energy, whilst responding to the local

Paragraph 2.10.96

Landscape and visual impacts should be considered carefully preapplication. Potential impacts on the statutory purposes of nationally designated landscapes should form a part of the pre application process.

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Paragraph 2.10.97

Applicants should carry out a landscape and visual assessment and report it in the ES. Visualisations may be required to demonstrate the effects of a proposed solar farm on the setting of heritage assets and any nearby residential areas or viewpoints.

context and integrating the Scheme into its landscape setting, in accordance with national and local planning policies.

As described in **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]**, an extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and visual effects of the Scheme as far as practicable. As described above, some significant adverse residual effects on landscape character and visual amenity would remain by Year 15 of the operation and maintenance phase of the Scheme. However, these operational effects are localised and would be reversed following 40 years of operation through decommissioning.

Photographs and visualisation have been included to support the descriptions of baseline views and visual effects in reference to the viewpoints, which have been agreed through consultation with the relevant local planning authority. This viewpoint photography accords with the Landscape Institute Technical Guidance Note 06/19 and is found within **ES Volume II Figure 10-9 [EN010152/APP/6.2]**.

Paragraph 2.10.98

Applicants should follow the criteria for good design set out in Section 4.7 of EN-1 when developing projects and

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.99	<p>will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays especially within nationally designated landscapes.</p> <p>Whilst there is an acknowledged need to ensure solar PV installations are adequately secured, required security measures such as fencing should consider the need to minimise the impact on the landscape and visual impact (see s 2.10.31 – 2.10.33 above)</p>	<p>As set out in section 6.3 of the Planning Statement [EN010152/APP/7.1] the location and design of the Scheme is the result of a comprehensive site selection process that was environmental and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.</p> <p>Design principles were developed at an early stage and have guided the Scheme’s design response to the local context to develop a good design that balances the need to maximise renewable energy generation from the Scheme, whilst minimising potential adverse impacts through avoidance and providing mitigation and enhancement measures where practicable in accordance with the mitigation hierarchy, as set out in the Design and Access Statement [EN010152/APP/7.2]. This has included:</p> <ul style="list-style-type: none">• developing a landscape design which carefully integrates the Scheme into the

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existing landscape pattern as far as practicable by retaining and following existing features, and providing new planting, including the filtering and screening of views from visual receptors.

- avoiding and retaining existing ecological features and habitats, and increasing the biodiversity value of the Order limits through embedded and additional mitigation and enhancement measures to provide a minimum of 10% BNG;
- retaining and enhancing PRow through the Solar PV Site; and
- reducing impacts as far as practicable on the setting of designated heritage assets and developing design solutions to enable the preservation in situ of archaeological remains.

In terms of security and lighting, the proposed fencing has been designed to minimise its visual prominence during operation. Pole mounted internal facing closed circuit television (CCTV) systems are proposed around the perimeter of the operational areas of the Solar PV Site. These will not require lighting and will use infrared technology at night. The Solar PV Site will not require artificial lighting other than during temporary periods of maintenance/repair and for the On-Site Substation, BESS and Operations

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.100	The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries. Applicants should also consider opportunities for individual trees within the boundaries to grow on to maturity.	and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions. As set out in ES Volume I Chapter 3: Design and Alternatives [EN010151/APP/6.1] and the Design and Access Statement [EN010152/APP/7.2] the design and layout of the Scheme has been developed to avoid or minimise tree loss and impacts, especially to those trees with the greatest quality and value (ancient or veteran trees).
Paragraph 2.10.101	The impact of the proposed development on established trees and hedges should be informed by a tree survey and arboricultural/hedge assessment as appropriate	An Arboricultural Impact Assessment (AIA) has been undertaken and is presented in ES Volume III Appendix 10.7 Arboricultural Impact Assessment [EN010152/APP/6.3] which considers the likely direct and indirect arboricultural impacts of the Scheme on trees within or immediately adjacent to the Order limits. The AIA concludes that tree feature loss (including hedgerows) to facilitate the Scheme represents approximately 5, 965 m ² or 1.2% of the total tree canopy cover surveyed within the Order limits with 98.8% (505,790 m ²) of surveyed canopy cover retained. All tree features to be removed are within the Order limits. No veteran or ancient trees are to be removed which is secured via the Framework CEMP [EN010152/APP/7.7] .

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The **Framework LEMP [EN010152/APP/7.14]** sets out the landscape and ecological principles for how the land will be managed throughout the operation and maintenance phase following the completion of construction. This includes measures to protect and retain the growth of vegetation. A detailed LEMP will be produced by the appointed construction contractor and agreed with the relevant Local Planning Authority (City of Doncaster Council) following the grant of the DCO and prior to the start of construction. Production of the detailed LEMP is secured through requirement 6 of the DCO (see Schedule 2 of the **Draft DCO [EN010152/APP/3.1]**).

Paragraph 2.10.131

Applicants should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges, trees and woodlands.

As set out in the **Design and Access Statement [EN010152/APP/7.2]** the following measures have been incorporated into the Scheme design to mitigate landscape and visual effects, specifically relating to vegetation and boundary treatments:

Paragraph 2.10.132

Applicants should aim to minimise the use and height of security fencing. Where possible applicants should utilise existing features, such as hedges or landscaping, to assist in site security or screen security fencing.

- All Solar PV Panels have been sited within the existing field pattern, protecting existing vegetation, and maximising the natural screening provided by field boundary vegetation.
- The Solar PV Site mostly avoids land adjacent to the local road network to minimise

Paragraph 2.10.133

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.

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the visual impact on people travelling. Where this has not been possible, bespoke offsets and mitigation planting to provide screening has been incorporated

- Offsets from trees and woodlands have been incorporated to ensure the health and longevity of vegetation, retaining the existing structure of the landscape. This includes minimum offsets of:
 - 15 m from individual trees (or greater if required by the root protection area);
 - 15 m from woodland;
 - 5 m from hedgerows; and
 - 10 m from watercourses.
- A substantial offset has been integrated along the southern side of the River Went, protecting the character of the river corridor through retaining a sense of openness.
- Mitigation planting would be located along the northern boundary of the Solar PV Panels, allowing for an open mosaic of habitats to be retained along the river corridor, in keeping with local character and enhancing the green infrastructure network.
- Hedgerows would generally be improved through 'gapping up' where they are currently

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fragmented, improving landscape structure and ecological connectivity.

- Fencing around the Solar PV Site would be timber posts with stock proof mesh-type fencing, measuring up to 2.2 m high, allowing visual permeability and thereby minimising its visual impact.
- Sensitive design of lighting is proposed (as outlined in the **Framework CEMP [EN010152/APP/7.7]**); and
- The re-use existing buildings where practical. This includes the re-use of an existing agricultural building (shown on Figure 3-13) for storage purposes. In addition, the siting of the Operations and Maintenance Hub next to the existing agricultural building and the requirement that its external finish match the prevailing environment (as required by the **Outline Design Parameters Statement [EN010152/APP/7.4]**), will ensure that the Operations and Maintenance Hub appropriately responds to its local context.

These measures will be put in place and secured through a detailed CEMP, DEMP and LEMP as part of requirements in Schedule 2 of the DCO. These detailed management plans will need to be substantially in accordance with the measures

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Paragraph 2.10.157

The Secretary of State will consider the landscape and visual impact of any proposed solar PV farm, taking account of any sensitive visual receptors, and the effect of the development on landscape character, together with the possible cumulative effect with any existing or proposed development. Nationally designated landscapes (National Parks, The Broads and Areas of Outstanding Beauty) are afforded extra protection due their statutory purpose. Development in these areas needs to satisfy policy as set out in EN-1 Section 5.10.

set out in the **Framework CEMP [EN010152/APP/7.7]**, **DEMP [EN010152/APP/7.9]** and **Framework LEMP [EN010152/APP/7.14]** to ensure that impacts are minimised and that the Scheme is implemented in accordance with the detailed management plans. .

ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] concludes that the Scheme is not located within any national or regionally designated landscapes.

ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] concludes that the Scheme would have significant adverse effects on a number of landscape receptors as a result of construction and decommissioning. However, these effects would be short-term and temporary.

In terms of operational effects, there would be an evident change in land use resulting from the Solar PV Site, which would alter the open character of the landscape. At Year 1, Moderate Adverse (significant) effects are therefore anticipated on the following landscape receptors:

- Landscape Character Area F2: Owsten to Sykehouse Settled (LCA F2);

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- Local Landscape Character Area 01: Fenwick Village (LLCA 01);
- Local Landscape Character Area 02: Fenwick Farmlands (LLCA 02);
- Local Landscape Character Area 03: River Went Farmlands (South) (LLCA 03); and
- Local Landscape Character Area 05: River Went Corridor (LLCA 05).

However, at Year 15, these effects would reduce and would not be significant for all of the above receptors, except for LLCA 02 – Fenwick Farmlands. This local landscape character area would still experience significant effects (Moderate Adverse): this is because two thirds of it would still be occupied by the Solar PV Site, continuing to introduce an evident change in land use and character.

For all other sensitive landscape receptors, the effects at Year 15 would not be significant, ranging from Neutral to Minor Adverse. By Year 15, structural planting proposed as part of the Scheme, including hedgerow gapping-up and new vegetation belts would have matured, helping to reduce the area from which the Scheme would be perceptible. Replacement planting along the Grid Connection Corridor would have also established and ground cover

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would be returned to its previous use, such that there would be no change in the landscape character.

The Scheme has sought to minimise impacts through design iteration and careful planting, it is therefore considered that the Scheme accords with paragraph 5.10.6 and 5.10.37 of NPS EN-1 and has taken account of the existing character and sensitivity of the landscape as set out in local policy.

For the balancing of effects and benefits required by paragraphs 5.10.14 and 5.10.35 of NPS EN-1, it is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of CNP Infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape and visual effects, and whilst they may be long term, the residual local landscape and visual effects will also be temporary.

Glint and Glare

Paragraph 2.10.158

Solar PV panels are 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

ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1] has undertaken an assessment of potential impacts of glint and glare

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	<p>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.</p>	<p>on surrounding residential receptors, road users, rail receptors, bridleway receptors and aviation assets.</p>
<p>Paragraph 2.10.103</p>	<p>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.</p>	<p>It concludes that there would be no impacts on residential receptors or road receptors, and low (not significant) impacts on aviation receptors on Runway 08 at Church Farm Airfield, which is acceptable.</p>
<p>Paragraph 2.10.104</p>	<p>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.</p>	
<p>Paragraph 2.10.105</p>	<p>The extent of reflectivity analysis required to assess potential impacts will depend on the specific project site and design. This may need to account for ‘tracking’ panels if they are proposed as these may cause differential diurnal and/or seasonal impacts.</p>	
<p>Paragraph 2.10.106</p>	<p>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</p>	
<p>Paragraph 2.10.133</p>	<p>Applicants should minimise the use of security lighting. Any lighting should utilise a passive infra-red (PIR)</p>	<p>As described in ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1], pole mounted CCTV systems will be deployed</p>

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	technology and should be designed and installed in a manner which minimises impact.	around the perimeter of the operational areas of the Scheme. These would be mounted on wooden posts approximately 2.5 m high. For the centrally located CCTV for the On-Site Substation this would be mounted up to 5 m high. CCTV cameras would be fixed inward facing and would be aligned to capture only the perimeter fence and area inside the fence. These measures are also set out in the Outline Design Parameters Statement [EN010152/APP/7.4] which is secured by a requirement in the draft DCO [EN010152/APP/3.1] .
Paragraph 2.10.135	Applicants may consider using screening between potentially affected receptors and the reflecting panels to mitigate the effects.	ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1] has undertaken an assessment of potential impacts of glint and glare on surrounding residential receptors, road users, rail receptors , bridleway receptors and aviation assets.
Paragraph 2.10.136	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	It concludes that there would be no impacts on residential receptors or road receptors, and low (not significant) impacts on aviation receptors on Runway 08 at Church Farm Airfield, which is acceptable.
Paragraph 2.10.158	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).	
Paragraph 2.10.159	Whilst there is some evidence that glint and glare from solar farms can be experienced by pilots and air traffic	

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	<p>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</p>	
Cultural Heritage		
Paragraph 2.10.107	<p>The impacts of solar PV developments on the historic environment will require expert assessment in most cases and may have effect both above and below ground.</p>	<p>ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1] provides an assessment on the historic environment, including above and below ground assets.</p>
Paragraph 2.10.108	<p>Above ground impacts may include the effects on the setting of Listed Buildings and other designated heritage assets as well as on Historic Landscape Character.</p>	<p>ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] identifies there to be a significant residual adverse effect on Fenwick Hall moated site scheduled monument for the lifetime of the Scheme and for Thorpe in Balne moated site, chapel and fishpond scheduled monument, during construction only. Designated heritage assets have been assessed in the</p>
Paragraph 2.10.109	<p>Below ground impacts, although generally limited, may include direct impacts on archaeological deposits through ground disturbance associated with trenching, cabling, foundations, fencing, temporary haul routes etc.</p>	<p>Heritage Statement (see Appendix C of the Planning Statement [EN010152/APP/7.1]) which concludes that these impacts result in ‘less than substantial harm’ owing mainly to the temporary and reversible change to the setting of the assets.</p>
Paragraph 2.10.110	<p>Equally solar PV developments may have a positive effect, for example archaeological assets may be protected by a solar PV farm as the site is removed from regular ploughing and shoes or low-level piling is stipulated.</p>	

**NPS EN-3
Relevant Paragraph**

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Detail**

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Significant cumulative effects have also been identified upon two Grade II listed buildings at Riddings Farm (comprising the Barn and granary immediately to the northwest of Lily Hall and the Dovecote and attached building on west side of farmyard at Riddings Farm).

With regard to non-designated heritage assets, following the results of additional evaluation surveys within the Grid Connection Corridor, and the final fieldwork report for trial trenching within the Solar PV Site, embedded mitigation measures may be deployed which would enable preservation in-situ of archaeological remains, resulting in no impact and no effect, therefore resulting in no significant residual effect.

In accordance with the NPS EN-1 (Ref. 2) paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, as set out in **Section 5 of the Planning Statement [EN010152/APP/7.1]**, including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.

**NPS EN-3
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		<p>Overall, the Scheme has followed the mitigation hierarchy in seeking to protect and conserve heritage assets where practicable, and the public benefits of the Scheme outweigh the harm, in line with national policy and regulations and also with relevant local policies.</p>
<p>Paragraph 2.10.112</p>	<p>Applicant assessments should be informed by information from Historic Environment Records (HERs)⁸⁷ or the local authority.</p>	<p>The assessment in Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1] has been informed by both South Yorkshire Archaeological Service HER and North Yorkshire Council HER.</p>
<p>Paragraph 2.10.113</p>	<p>Where a site on which development is proposed includes, or has the potential to, include heritage assets with archaeological interest, the applicant should submit an appropriate desk-based assessment and, where necessary, a field evaluation. These should be carried out, using expertise where necessary and in consultation with the local planning authority, and should identify archaeological study areas and propose appropriate schemes of investigation, and design measures, to ensure the protection of relevant heritage assets</p>	<p>A detailed baseline is set out in the DBA in Appendix 7-2 Cultural Heritage Desk Based Assessment of the ES [EN010152/APP/6.3], which is support by gazetteers of heritage assets in Appendix 7-3 of the ES [EN010152/APP/6.3]. The location of heritage assets, previous archaeological events and indicative illustrations of historic landscape character are provided in Figure 7-1 to 7-5 of the ES [EN010152/APP/6.2].</p>
<p>Paragraph 2.10.114</p>	<p>In some instances, field studies may include investigative work (and may include trial trenching beyond the boundary of the proposed site) to assess the impacts of any ground disturbance, such as proposed cabling, substation foundations or mounting supports for solar panels on archaeological assets.</p>	<p>Archaeological trial trench evaluation has been undertaken for the Scheme and potential impacts to buried archaeological features confirmed as being present within the Order limits is included within Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1].</p>

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.115	The extent of investigative work should be proportionate to the sensitivity of, and extent of proposed ground disturbance in, the associated study area	
Paragraph 2.10.116	Applicants should take account of the results of historic environment assessments in their design proposal	Section 5 of the Design and Access Statement [EN010152/APP/7.2] sets out how the Scheme has considered the results of historic assessment in its design.
Paragraph 2.10.117	Applicants should consider what steps can be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting.	Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1] describes the heritage assets within the Study Area for the Scheme and their significance, and the contribution of their significance to the setting.
Paragraph 2.10.118	As the significance of a heritage asset derives not only from its physical presence but also from its setting, careful consideration should be given to the impact of large-scale solar farms which depending on their scale, design and prominence, may cause substantial harm to the significance of the asset.	Section 7.7 of Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1] sets out steps taken to ensure heritage assets are conserved in a manner appropriate to their significance, including embedded mitigation such as buffers to protect the impact of the Scheme on views important to their setting.
Paragraph 2.10.119	Applicants may need to include visualisations to demonstrate the effects of a proposed solar farm on the setting of heritage assets.	Section 7.8 and 7.10 of Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1] provides the results of an assessment of the likely impacts and effects of the Scheme on cultural heritage. ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] considers the setting of

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.137	The ability of the applicants to microsite specific elements of the proposed development during the construction phase should be an important consideration by the Secretary of State when assessing the risk of damage to archaeology.	heritage assets as part of its assessment of likely significant effects. The details of how the setting of assets is assessed can be found in section 7.4 of ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] .
Paragraph 2.10.138	Where requested by the applicant, the Secretary of State should consider granting consents which allow for the micrositeing within a specified tolerance of elements of the permitted infrastructure so that precise locations can be amended during the construction phase if unforeseen circumstances, such as the discovery of previously unknown archaeology, arise.	The Scheme will be constructed in accordance with the parameters set out in the Outline Design Parameters Statement [EN010152/APP/7.4] , providing flexibility to amend the design should significant archaeological finds be discovered.
Paragraph 2.10.160	Solar farms are generally consented on the basis that they will be time-limited in operation. The Secretary of State should therefore consider the length of time for which consent is sought when considering the impacts of any indirect effect on the historic environment, such as effects on the setting of designated heritage assets	The design life of the Scheme is expected to be 40 years. ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] identifies there to be a significant residual adverse effect on Fenwick Hall moated site scheduled monument for the lifetime of the Scheme and for Thorpe in Balne moated site, chapel and fishpond scheduled monument, during construction only. Designated heritage assets have been assessed in the Heritage Statement (see Appendix C of the

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Planning Statement [EN010152/APP/7.1]

which concludes that these impacts result in 'less than substantial harm' owing mainly to the temporary and reversible change to the setting of the assets.

Significant cumulative effects have also been identified upon two Grade II listed buildings at Riddings Farm (comprising the Barn and granary immediately to the northwest of Lily Hall and the Dovecote and attached building on west side of farmyard at Riddings Farm).

There would be no significant residual adverse effects on any non-designated heritage assets.

In accordance with the NPS EN-1 paragraphs 5.9.32 and 5.9.33, and taking into account of the principles set out in NPS EN-1 paragraphs 4.2.16 and 4.2.17, the substantial public benefits and need for the Scheme, as set out in **Section 5 of the Planning Statement [EN010152/APP/7.1]**, including the delivery of CNP infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.162	The Secretary of State is unlikely to give any more than limited weight to traffic and transport noise and vibration impacts from the operational phase of a project.	<p>Overall, the Scheme has followed the mitigation hierarchy in seeking to protect and conserve heritage assets where practicable, and the public benefits of the Scheme outweigh the harm, in line with national policy and regulations and also with relevant local policies.</p> <p>An assessment of the Scheme’s impact on noise and vibration is presented in Chapter 11: Noise and Vibration of the ES [EN010152/APP/6.1]. The effects of traffic and transport on the Scheme is not expected to result in any significant residual impact on noise and vibration with the proposed mitigation measures to be secured in the CEMP in place.</p>
Construction including traffic and transport noise and vibration		
Paragraph 2.10.120	Modern solar farms are large sites that are mainly comprised of small structures that can be transported separately and constructed on-site, with developers designating a compound on-site for the delivery and assemblage of the necessary components.	As set out in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] the layout of the Solar PV Site was developed as part of a strategic masterplanning process, influenced by the outcome of a number of factors, including access surveys and consultation feedback.
Paragraph 2.10.121	Many solar farms will be sited in areas served by a minor road network. Public perception of the construction phase of solar farm will derive mainly from the effects of traffic movements, which is likely to involve smaller vehicles than typical onshore energy infrastructure but may be more voluminous.	In developing the DCO submission layout and following a review of statutory consultation feedback, the Applicant reviewed the main access requirements for the Solar PV Site and made two main changes. These include:
Paragraph 2.10.123	Applicants should assess the various potential routes to the site for delivery of materials and components where the source of the materials is known at the time of the	

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
	application and select the route that is the most appropriate.	<u>Selection of Access to the East of the Village of Moss</u>
Paragraph 2.10.124	Where the exact location of the source of construction materials, such as crushed stone or concrete is not be known at the time of the application applicants should assess the worst-case impact of additional vehicles on the likely potential routes.	The Applicant reviewed its proposals to access the Solar PV Site and altered the main access for the Solar PV Site to utilise an existing field access to the east of the village of Moss (as shown in Annexe A of the Framework
Paragraph 2.10.125	Applicants should ensure all sections of roads and bridges on the proposed delivery route can accommodate the weight and volume of the loads and width of vehicles. Although unlikely, where modifications to roads and/or bridges are required, these should be identified, and potential effects addressed in the ES	Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17] . In doing so, the Applicant removed the access to the west of Moss. This results in the elimination of any hedgerow removal, and removal of any construction works within the village of Moss, which was a concern expressed through statutory consultation feedback. <u>Removal of the Proposed Access for Construction HGV Vehicles via Fenwick Common Lane and Hags Lane</u> Following a review of the existing highway infrastructure and concerns expressed through statutory consultation feedback, it was determined that Fenwick Common Lane and Hags Lane are now proposed to be used as an access route for construction workforce vehicles only and no HGVs will use this route. This would eliminate the need for any upgrade works and subsequent disturbance to the Local Road Network at the junction of Fenwick Common Lane and Hags Lane.

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Relevant Paragraph**

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Further details of the above changes are set out in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**.

The various routes to the site for delivery of materials and components has been assessed in **ES Volume I Chapter 13: Transport [EN010152/APP/6.1]** and **Access and ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP/6.3]**, using a worst case scenario. **ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1]** concludes that following implementation of the embedded mitigation, impacts would be not significant, except at Moss Road, Fenwick Common Lane, Trumfleet Land, Marsh Road and Thorpe Bank where impacts during construction would be significant. **ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP/6.3]** concludes that there will be a negligible percentage increase in traffic on most roads in the surrounding area. However, roads such as Moss Road, that have a low baseline, will experience a relatively high percentage increase in traffic. The low baseline is the reason for the higher increase in traffic and therefore the overall impact is not deemed significant.

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.126	Where a cumulative impact is likely because multiple energy infrastructure developments are proposing to use a common port and/or access route and pass through the same towns and villages, applicants should include a cumulative transport assessment as part of the ES. This should consider the impacts of abnormal traffic movements relating to the project in question in combination with those from any other relevant development. Consultation with the relevant local highways authorities is likely to be necessary	ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1] presents an assessment of the cumulative transport and access impacts of the Scheme alongside other developments in the area in section 13.10. It concludes that it is considered that there are unlikely to be significant effects arising from cumulative development, due to limited overlap of other scheme areas with the Study Area and/or limited levels of traffic being generated by cumulative developments. Measures set out in the Framework CTMP [EN010152/APP/7.17] and the Framework PRow Management Plan [EN010152/APP/7.13] will ensure that impacts are mitigated as far as practicable.
Paragraph 3.10.118	The Defra Construction code of practice for the sustainable use of soils on construction sites provides guidance on ensuring that damage to soil during construction is mitigated and minimised. Mitigation measures focus on minimising damage to soil that remains in place, and minimising damage to soil being excavated and stockpiled. The measures aim to preserve soil health and soil structure to minimise soil carbon loss and maintain water infiltration and soil biodiversity. Mitigation measures for agricultural soils include use of green cover, multispecies cover crops - especially during the winter- minimising compaction and adding soil organic matter.	Industry standard good practice measures for the handling and management of soils resources based upon guidance such as Defra's Code of Practice for the Sustainable Use of Soil on Development Sites and are further explained in the Framework CEMP [EN010152/APP/7.7] and the Framework Soil Management Plan [EN010152/APP/7.10] .

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.127	In some cases, the local highway authority may request that the Secretary of State impose controls on the number of vehicle movements to and from the solar farm site in a specified period during its construction and, possibly, on the routing of such movements particularly by heavy vehicles	The Scheme design incorporates mitigation to reduce adverse effects and minimise impacts. These are set out in section 13.6 and 13.8 of the Chapter 13: Transport and Access of the ES [EN010152/APP/6.1] and Section 10.6 of the associated TA (Appendix 13-4 of the ES [EN010152/APP/6.3]). These measures will be secured by the Framework CTMP [EN010152/APP/7.10] , the Framework CEMP [EN010152/APP/7.7] and Framework DEMP [EN010152/APP/7.9] which are submitted with the Application. The draft DCO [EN010152/APPP/3.1] sets out a number of requirements in Schedule 2 securing the submission and approval of a detailed CTMP, CEMP and DEMP at the relevant phase of the Scheme to be substantially in accordance with the Framework Plans and for the Scheme to then be implemented in accordance with the approved plans.
Paragraph 2.10.140	Where the Secretary of State agrees that this is necessary, requirements could be imposed on development consent.	
Paragraph 2.10.141	Where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised.	ES Volume I Chapter 13: Transport and Access [EN010152/APP/6.1] presents an assessment of the cumulative transport and access impacts of the Scheme alongside other developments in the area in section 13.10. It concludes that it is considered that there are unlikely to be significant effects arising from cumulative development, due to limited overlap of

NPS EN-3 Relevant Paragraph	NPS EN-3 Detail	NPS EN-3 Proposed Development compliance
Paragraph 2.10.142	It may also be appropriate for the highway authority to set limits for and coordinate these deliveries through active management of the delivery schedules through the abnormal load approval process.	other scheme areas with the Study Area and/or limited levels of traffic being generated by cumulative developments. Measures set out in the Framework CTMP [EN010152/APP/7.17] and the Framework PRoW Management Plan [EN010152/APP/7.13] will ensure that impacts are mitigated as far as practicable.
Paragraph 2.10.143	Once consent for a scheme has been granted, applicants should liaise with the relevant local highway authority (or other coordinating body) regarding the start of construction and the broad timing of deliveries. Applicants may need to agree a planning obligation to secure appropriate measures, including restoration of roads and verges.	The Applicant will continue to liaise with local highway authorities following submission of the Application and consent. Further consultation with City of Doncaster Council Highways has been carried out in relation to the suitability of proposed access locations (for example the main access east of Moss and associated minor diversion of PRoW Moss 6 and Fenwick 14), outline designs and associated visibility splays. Consultation relating to the PRoW on Higgs Lane has also been undertaken in relation to the potential usage as an access for non HGV traffic.
Paragraph 2.10.144	Further it may be appropriate for any non-permanent highway improvements carried out for the development (such as temporary road widening) to be made available for use by other subsequent solar farm developments	It is not currently considered necessary to agree planning obligations to secure highway works.
Paragraph 2.10.161	Once solar farms are in operation, traffic movements to and from the site are generally very light, in some instances as little as a few visits each month by a light commercial vehicle or car. Should there be a need to replace machine components, this may generate heavier commercial vehicle movements, but these are likely to be infrequent.	As set out in ES Volume I Chapter 2: The Scheme [EN010152/APP/6.1] . during operation, activity on the Solar PV Site would be restricted principally to vegetation management, equipment maintenance and servicing, ad hoc replacement of any components that fail or reach the end of their lifespan (further described below), periodic

**NPS EN-3
Relevant Paragraph**

**NPS EN-3
Detail**

**NPS EN-3
Proposed Development compliance**

Paragraph 2.10.162

The Secretary of State is unlikely to give any more than limited weight to traffic and transport noise and vibration impacts from the operational phase of a project.

fence inspection, and monitoring to ensure the continued effective operation of the Scheme. Along the route of the Grid Connection Cables, operational activity would consist of routine inspections and any reactive maintenance such as where a cable has faulted or been damaged.

Chapter 13: Transport and Access of the ES [EN010152/APP/6.1] states that during the operational phase, traffic numbers will be negligible and not significant. **A Framework Operational Environmental Management Plan (OEMP) [EN010152/APP/7.8]** sets out the principals to be followed during the operation of the Scheme.

An assessment of the Scheme's impact on noise and vibration is presented in **Chapter 11: Noise and Vibration** of the ES [EN010152/APP/6.1]. The effects of traffic and transport on the Scheme is not expected to result in any significant residual impact on noise and vibration with the proposed mitigation measures to be secured in the CEMP in place.

NPS EN-5 Electricity Networks Infrastructure

NPS EN-5 Relevant Paragraph	NPS EN-5 Detail	NPS EN-5 Proposed Development compliance
Background		
Paragraph 1.1.5	As identified in EN-1, government has concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure. This includes: for electricity grid infrastructure, all power lines in scope of EN-5 including network reinforcement and upgrade works, and associated infrastructure such as substations. This is not limited to those associated specifically with a particular generation technology, as all new grid projects will contribute towards greater efficiency in constructing, operating and connecting low carbon infrastructure to the National Electricity Transmission System. These are viewed by the government as being CNP infrastructure and should be progressed as quickly as possible.	The Statement of Need [EN010152/APP/7.3] and Section 5 of the Planning Statement explain that the Scheme will be a substantial infrastructure asset, which if consented will deliver large amounts of cheap, secure and low-carbon electricity which will help the UK achieve its Sixth Carbon Budget commitments and stay on track to achieve net zero by 2050. Maximising the capacity of generation in the proposed location for the Scheme represents a significant and commercially rational step forward in the fight against the global climate emergency
Site selection and design		
Paragraph 2.2.8	There will usually be a degree of flexibility in the location of the development’s associated substations, and applicants should consider carefully their location, as well as their design	The applicant wishes to retain flexibility regarding the design detail of certain components of the Scheme. The extent of flexibility required is described in Chapter 2: Scheme Description of the ES [EN010152/APP/6.1] and set out in the Design Principles Statement [EN010152/APP/7.4] and Design and Access Statement [EN010152/APP/7.2] .
Paragraph 2.2.9	In particular, the applicant should consider such characteristics as the local topography, the possibilities for screening of the infrastructure and/or other options to mitigate any impacts. (See Section 2.10 below and Section 5.10 in EN-1.)	As detailed in the Design and Access Statement [EN010152/APP/7.2] and Section 6.3 of the

Planning Statement [EN010152/APP/7.2], the location and design of the Scheme is the result of a comprehensive site selection process that was environmental, and planning led, to avoid and minimise impacts as early as possible. Following this, the Scheme has undergone an iterative design process which has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity using solar PV arrays, whilst also being sensitive to the local context and surrounding area within which it is located, avoiding and minimising impacts on the environment as far as practicable.

The design process and basis of design are set out in **Chapter 3: Alternatives and Design Evolution** of the ES **[EN010152/APP/6.1]** and the **Design and Access Statement [EN010152/APP/7.2]**.

As part of this design, as set out in the **Outline Design Parameters Statement [EN010152/APP/7.4]** the On-Site Substation and BESS would be located at least 500m away from residential properties, to avoid adverse effects on residential properties in close proximity to the Scheme.

In addition, the key focus of Design Principle 11 outlined in the **Design and Access Statement [EN010152/APP/7.2]** is to ensure the Scheme is sited sensitively in the landscape, respecting the distinctive and unique character of settlements adjacent to the Site and the surrounding countryside. The Scheme has done this by locating larger infrastructure, such as the On-Site Substation and BESS Area, away from residential receptors, which are identified as being amongst the most sensitive receptors, to minimise potential visual effects.

Climate Change adaption and resilience

<p>Paragraph 2.3.1</p>	<p>Section 4.10 of EN-1 sets out the generic considerations that applicants and the Secretary of State should take into account in order to ensure that electricity networks infrastructure is resilient to the effects of climate change.</p>	<p>As outlined in Chapter 6: Climate Change of the ES [EN010152/APP/6.1], the effects of climate change have been taken into account in the design of the Scheme, and when considering how it will be constructed, operated and decommissioned. Measures embedded into the design of the Scheme are set out in section 6.6 and include (but are not limited to):</p>
<p>Paragraph 2.3.2</p>	<p>As climate change is likely to increase risks to the resilience of some of this infrastructure, from flooding for example, or in situations where it is located near the coast or an estuary or is underground, applicants should in particular set out to what extent the proposed development is expected to be vulnerable, and, as appropriate, how it has been designed to be resilient to:</p> <ul style="list-style-type: none"> • flooding, particularly for substations that are vital to the network; and especially in light of changes to groundwater levels resulting from climate change; • the effects of wind and storms on overhead lines; • higher average temperatures leading to increased transmission losses; 	<ul style="list-style-type: none"> • Adopting the Considerate Constructors Scheme (CCS) to assist in reducing pollution, including GHGs, from the Scheme by employing good industry practice measures which go beyond statutory compliance; • Liaising with personnel on the potential to implement staff minibuses and car sharing options;

- earth movement or subsidence caused by flooding or drought (for underground cables); and
 - coastal erosion – for the landfall of offshore transmission cables and their associated substations in the inshore and coastal locations respectively
- Switching vehicles and plant off when not in use and ensuring construction vehicles conform to European Union (EU) vehicle emissions standards for the types of plant vehicles to be used;
 - Increasing recyclability by segregating construction/decommissioning waste to be re-used and recycled where reasonably practicable;
 - Designing, constructing and implementing the Scheme in such a way as to minimise the creation of waste;
 - Conducting regular planned maintenance of the plant and machinery to operate efficiently;
 - Storing topsoil and other construction materials outside of the 1 in 100-year floodplain extent within the Solar PV Site, as far as reasonably practicable;
 - Named person(s) – likely Safety, Health and Environment Manager/ Clerk of Works – to monitor weather forecasts and receive Environment Agency flood alerts to allow works to be planned and carried out accordingly to manage extreme weather conditions such as storms and flooding; and
 - Health and safety plans developed for construction activities will be required to account for potential climate change impacts on workers, such as flooding and heatwaves.

To include measures such as toolbox talks on training on dangers of extreme weather conditions

A Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9] will be developed into a detailed CEMP, OEMP and DEMP prior to the commencement of the construction phase as a means to secure the embedded mitigation measures.

Further climate change resilience measures embedded into the Scheme, including measures associated with flood risk are included in the **Framework CEMP [EN010152/APP/6.1]**. Further detail on the specific flood impacts and mitigation measures are discussed in **Chapter 9: Water Environment** of the ES **[EN010152/APP/6.1]**.

Paragraph 2.3.3

Section 4.10 of EN-1 advises that the resilience of the project to the effects of climate change must be assessed in the Environmental Statement (ES) accompanying an application. For example, future increased risk of flooding would be covered in any flood risk assessment (see Sections 5.8 in EN-1). Consideration should also be given to coastal change (see section 5.6 in EN-1).

Chapter 6: Climate Change of the ES [EN010152/APP/6.1] assess the climate change impacts of the Scheme and includes a Climate Change Risk Assessment (CCRA) and an In-Combination Climate Change Impact (ICCI) Assessment.

The specific flood risk impacts and associated mitigation measures are discussed in further detail in **Chapter 9: Water Environment of the ES [EN010152/APP/6.1]** and **Appendix 9-3: FRA of the ES [EN010152/APP/6.2]**.

Paragraph 2.8.4	The Secretary of State should also take into account that Transmission Owners (TOs) and Distribution Network Operators (DNOs) are required under Section 9 of the Electricity Act 1989 to bring forward efficient and economical proposals in terms of network design.	The Applicant has secured a connection to the National Grid via a new below ground grid connection cable, located within the Grid Connection Corridor. This would allow the Scheme to connect the On-Site Substation to the Existing National Grid Thorpe Marsh Substation. Further details are included in the Grid Connection Statement [EN010152/APP/7.5] .
Paragraph 2.8.5	TOs and DNOs are also required to facilitate competition in the generation and supply of electricity, and electricity distributors have a statutory duty to provide a connection where requested.	
Paragraph 2.9.38	Audible noise effects can also arise from substation equipment such as transformers, quadrature boosters and mechanically switched capacitors.	Chapter 11: Noise and Vibration of the ES [EN010152/APP/6.1] has assessed the impacts of all components of the Scheme including the On-Site Substation.
Paragraph 2.9.38	Transformers are installed at many substations, and generate low frequency hum. Whether the noise can be heard outside a substation depends on a number of factors, including transformer type and the level of noise attenuation present (either engineered intentionally or provided by other structures).	It is concluded that there will not be any significant Noise impacts from the On-Site Substation, or any noise generating equipment as a result of the Scheme. As set out in the Outline Design Parameters Statement [EN010152/APP/7.4] Field Stations - comprising inverters, transformers and switchgear would be located at least 250m away from residential properties, and the On-Site Substation and BESS would be located at least 500m away from residential properties, to avoid adverse effects on residential properties in close proximity to the Scheme.
Paragraph 2.10.8	Furthermore, since long-term management of the selected mitigation schemes is essential to their mitigating function, a management plan, developed at least in outline at the conclusion of the examination, and	The Applicant is committed to achieving the Government's target of at least 10% biodiversity net gain as set out in the Environment Act 2021 (Error! Reference source not found.). Error!

which sets out proposals within a realistic timescale, should secure the integrity and benefit of these schemes. This should also uphold the landscape commitments made to achieve consent, alongside any pertinent commitments to environmental and biodiversity net gain.

Reference source not found.) A **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** has been produced for the DCO Application and demonstrates that the Scheme is able to significantly exceed the 10% target. Based on the current plans for the Site, the Scheme is predicted to result in a net gain of 36.46% for area-based habitat units, a net gain of 62.75% for hedgerow units, and a net gain of 24.97% for watercourse units. Long-term management of the Schemes landscape mitigation and screening is detailed within the **Framework LEMP [EN010152/APP/7.14]**.

Electric and Magnetic Fields

Paragraph 2.10.11

The applicant should consider the following factors:

- height, position, insulation and protection (electrical or mechanical as appropriate) measures subject to ensuring compliance with the Electricity Safety, Quality and Continuity Regulations 2002;
- 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
- any new advice emerging from the Department of Health and Social Care relating to government policy for EMF exposure guidelines

The design of the Scheme will ensure compliance with Electricity Safety, Quality and Continuity Regulations 2002, however this is not specifically addressed within the ES.

The Scheme has considered relevant up to date legislation, policy and guidance as set out in Section 14.7 of **ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1]** and **ES Volume III Appendix 14-1: OET Legislation, Policy and Guidance [EN010152/APP/6.3]**.

Paragraph 2.11.13

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

As set out in Section 14.7 of **ES Volume I Chapter 14: Other Environmental Topics**

government's policy that power lines should not be undergrounded solely for the purpose of reducing exposure to EMFs

Paragraph 2.11.14

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 01/03, or any successor, when considering recommendations for DCO applications. More detail on this issue can be found in Section 5.5 of EN-1.

Paragraph 2.11.15

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

[EN010152/APP/6.1] there are two options for connection to the Existing National Grid Thorpe Marsh Substation currently under consideration that may involve above-ground infrastructure with the potential to have EMF effects. The arrangement of the grid connection will be determined after the DCO is submitted. The two options are:

- The installation of underground 400 kV and associated cables in the Grid Connection Corridor, connecting the On-Site Substation to the Existing National Grid Thorpe Marsh Substation; and
- Underground 400 kV Grid Connection Line Drop to connect the On-Site Substation to the existing overhead power lines within the Solar PV Site. This option would comprise of below ground cables connecting the On-Site Substation to a new cable sealing end compound at the base of an existing on-site 400 kV overhead line tower.

As concluded in Section 14.7 of **ES Volume I Chapter 14: Other Environmental Topics** **[EN010152/APP/6.1]** the Order limits is not within the safeguarding zone of any safeguarded civil aerodrome as listed on Annex 3 of the Planning Circular 01/0318: Safeguarding Aerodromes, Technical Sites and Military Explosive Storage Areas. It is noted that Doncaster Safeguarded aerodrome listed on Annex 3 is located

approximately 17 km south of the Scheme. However, at the distances of separation between the existing 400 kV overhead cables and the Grid Connection Corridor and potential aviation receptors, the levels of EMF experienced by potential aviation receptors is considered to be negligible and therefore aviation receptors are not included in the assessment.

Section 14.7 of **ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1]** concludes that during construction and prior to energisation, and during decommissioning, transmission equipment would not produce any significant EMFs. Therefore, construction and decommissioning effects are not considered within the assessment.

During operation, Section 14.7 of **ES Volume I Chapter 14: Other Environmental Topics [EN010152/APP/6.1]** concludes that taking into account the guidance and the UK limits set for safety of members of the public, no significant impacts are expected to arise on the public from electromagnetic fields as result of the underground cables that form part of the Scheme.

Appendix B Local Policy Accordance Tables

Doncaster Local Plan 2015-2035

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 13: Promoting Sustainable Transport in New Developments (Strategic Policy)	<p>Proposals are required to meet the following requirements:</p> <p>A) New development shall make appropriate provision for access by sustainable modes of transport to protect the highway network from residual vehicular impact. The Council will work with developers to ensure that:</p> <ol style="list-style-type: none">1. access to the development can be made by a wide choice of transport modes, including walking, cycling, and the private car, and public transport where appropriate;2. site layouts and the street environment are designed to control traffic speed through an appropriate network and street hierarchy that promotes road safety for all;3. walking and cycling are encouraged within the development and beyond, through the design of facilities and infrastructure within the site and provision of linkages to the wider network;4. appropriate levels of parking provision are made in accordance with the standards contained within Appendix 6. A departure from these standards may be justified on a case by case basis, for example reduced parking levels for Town Centre residential developments where accessibility to public transport is more prevalent. Developments should also include provision for electric vehicle charging points, with fast charging infrastructure provided for use by short stay users where appropriate;	<p>ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1] and the associated Transport Assessment (TA) (ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP6.3]) set out the mitigation measures that the Scheme will implement to encourage the use of sustainable transport modes and minimise additional travel demand.</p> <p>Opportunities to support sustainable travel are mostly related to car-sharing and the potential for the contractor to operate a staff minibus. It has been assumed that 40% of staff will travel to the Site via minibus (the locations and routes of the shuttle services are yet to be determined). People wishing to cycle will also be encouraged and accommodated. These opportunities have been further covered in the Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17].</p> <p>The Framework CTMP also sets out the parking strategy for the construction phase of the Scheme. It is anticipated that limited (but sufficient) on site car and cycle parking to</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

5. residential developments should provide dedicated cycle storage for each property. For houses, this could be in adequately sized garages or bike sheds. For flats or apartments, this may be shared dedicated secure facilities. Non-residential developments are required to provide cycle parking spaces to the equivalent of at least 10% of car parking spaces as set out in Appendix 6. Any departure from the standards for car parking provision should not be reflected in the reduction of cycle parking provision and, where appropriate, this should be increased in locations where cycling infrastructure encourages higher levels of cycling; and
6. development does not result in unacceptable impact on highway safety, or severe residual cumulative impacts on the road network. Developers must consider the impact of new development on the existing highway and transport infrastructure. Where necessary, developers will be required to mitigate (or contribute towards) any predicted adverse effects on the highway and the wider transport network.

B) New developments will need to provide, as appropriate, Transport Statements, Transport Assessments and Travel Plans to ensure the delivery of travel choice and sustainable opportunities for travel in line with the latest government guidance and best practice. Thresholds for when these documents are required are set out in Appendix 7.

accommodate the expected parking demand of workers for the Scheme.

The **TA (ES Volume III Appendix 13-4: Transport Assessment [EN010152/APP6.3])** considers the capacity of the network to safely accommodate the proposed construction traffic. It is acknowledged that the greatest impact is likely to occur during the construction and decommissioning phases of the Scheme. There will be a negligible percentage increase in traffic on most roads in the surrounding area. However, roads such as Moss Road, that have a low baseline, will experience a relatively high percentage increase in traffic. The low baseline is the reason for the higher increase in traffic and therefore the overall impact is not deemed significant.

Several measures have been included as embedded mitigation within the ES and will be implemented to minimise the traffic impacts of the Scheme on the highway network during the construction and decommissioning phases. These measures include start and finish times that ensure that trips are outside of the network peak, promoting car sharing, and minibus provision. The measures will be secured through a requirement of the DCO, primarily by

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>New developments that are predicted to have an adverse impact on the transport network will be expected to contribute towards capacity and mitigation measures. Proposals that require new projects will be required to make a proportionate financial contribution.</p> <p>In addition, proposals should include details of post-development monitoring of traffic and mitigation measures in the event that traffic levels agreed through the original permission are later exceeded.</p>	<p>the Framework CTMP of the ES [EN010152/APP/7.17] and the Framework PRow Management Plan [EN010152/APP/7.13], as well as the Framework CEMP [EN010152/APP/7.7] for the construction phase, the OEMP [EN010152/APP/7.8] for the operation and maintenance phase and the Framework DEMP [EN010152/APP/7.9] for the decommissioning phase.</p> <p>It is concluded that the Scheme meets the relevant requirements of this policy by promoting sustainable modes of transport as far as practicable, providing appropriate levels of parking and implementing appropriate mitigation measures to minimise the traffic impacts of the Scheme on the highway network.</p>
<p>Policy 26: Green Infrastructure (Strategic Policy)</p>	<p>The Council will protect, maintain, enhance and, where possible, extend or create Doncaster’s green infrastructure (GI), including landscapes, ecological networks, natural environment, open spaces, public rights of way, geodiversity, biodiversity, navigable river and waterway assets, through the following principles:</p> <p>A) Proposals will be supported which contribute toward green infrastructure and have regard to the latest Council GI audits and strategies. The green infrastructure should principally benefit the development but also connect to the wider network. All major</p>	<p>A Framework Landscape and Ecological Management Plan (LEMP) [EN010152/APP/7.14] is submitted with the DCO application. The LEMP sets out the measures proposed to enhance the biodiversity, landscape and green infrastructure value of the Scheme.</p> <p>In line with part A of the policy:</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

development proposals of 1 hectare or more (see also Policy 42 Part C) will be required to demonstrate how the development:

1. contributes toward delivering identified opportunities, priorities and address local need;
2. creates or enhances green corridors, including rights of way;
3. provides specific and dedicated spaces for wildlife to encourage a more robust and connected network of habitats;
4. considers tranquillity and provide for generous biodiversity rich open spaces;
5. provides well designed and accessible, sport, recreation and children's play space and food growing opportunities;
6. avoids loss or damage or deterioration to green infrastructure assets;
7. defines and softens the edges of settlements to provide a high quality transition between urban and rural areas particularly at urban greenfield extensions;
8. meets the Council's requirements in terms of type, detailed siting, size, shape and design;
9. helps people and wildlife adapt to the impacts of climate change by including naturalised forms of flood storage and/or incorporating additional tree planting within developments; and

- New green infrastructure elements will be established and habitat corridors enhanced through the Solar PV Site. These will improve wildlife connectivity, elevate landscape quality and enhance visual amenity.
- Large areas of modified and neutral grassland will be provided beneath the solar panels and across the broader Solar PV Site in order to boost biodiversity and create new habitats. This will also help to ameliorate soil conditions after long-term agricultural practices. This includes a new green corridor that follows the existing Fleet Drain through the northeast of the Solar PV Site.
- The proposed mitigation will also increase and enhance the existing hedgerow network, with gapping up and planting of native hedgerows with hedgerow trees, providing better connectivity and creating new valuable habitats.
- Land adjacent to the River Went will be conserved and enhanced in order to maintain the existing open riparian mosaic and provide further benefits to biodiversity.
- As set out in Section 6.6 of **ES Volume I Chapter 6: Climate Change**

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

10. provides for long term protection and climate change resilience through smart developments, management and maintenance.

B) Proposals adjacent or near to waterways, including those which contribute towards delivering identified opportunities and priorities, such as at the Doncaster Waterfront and Stainforth Marina, will be supported which:

1. take account of the different existing or potential roles, characteristics and functions of waterways such as for sustainable transport for water borne freight; for recreational use for walking or cycling; and/or for value as a wildlife corridor;
2. safeguard and improve environmental quality and amenity;
3. enhance the local environment and access to and along waterway corridors;
4. take into account the needs of all users; and
5. avoid loss, damage or deterioration of waterways assets and ensure they are an integral part of the development.

[EN010152/APP/6.1], climate change resilience measures (such as flood resilience) are built into the Scheme and, in relation to the different phases of the Scheme, are set out in the **Framework CEMP [EN010152/APP/7.7]**, **DEMP [EN010152/APP/7.9]** and **Framework LEMP [EN010152/APP/7.14]**, with the detailed versions of these documents secured by requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**.

There are watercourses and drains within or adjacent to the Order Limits. The interaction of the Scheme with these features was a key consideration in the design of the Scheme, as set out in the **Design and Access Statement [EN010152/APP/7.2]**. Setbacks of at least 10m from watercourses (taken from the bank-top of the watercourse) are included within the Scheme design to protect riparian habitats and to mitigate for potential hazards such as chemical and soils spills into watercourses. This will protect the watercourse and avoid potential direct impacts to watercourses and any protected species using them. On this basis, the Scheme is considered to be in line with part B of the policy.

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 29: Ecological Networks (Strategic Policy)	<p>Proposals will only be supported which deliver a net gain for biodiversity and protect, create, maintain and enhance the Borough's ecological networks by:</p> <p>A) being of an appropriate size, scale and type in relation to their location within and impact on the ecological network;</p> <p>B) maintaining, strengthening and bridging gaps in existing habitat networks;</p> <p>C) planting native species and creating new, or restoring existing, national and local priority habitats and/or species; and</p> <p>D) working with strategic partnerships to deliver conservation projects at a landscape scale where appropriate.</p>	<p>In addition to protecting existing ecological sites and features, the Applicant has taken opportunities to provide mitigation and enhancement measures within the Order limits to increase biodiversity and provide overall net gains in habitat. The proposed planting design is set out in the Framework LEMP [EN010152/APP/7.14] and includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits. The Scheme delivers a minimum 10% biodiversity net gain (see Biodiversity Net Gain Assessment [EN010152/APP/7.11]), and significant beneficial impacts on ecological features and habitats. The Scheme has</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 30: Valuing Biodiversity and Geodiversity (Strategic Policy)	<p>The Borough has a range of internationally, nationally, and locally important habitats, sites and species that will be protected through the following principles:</p> <p>A) All proposals shall be considered in light of the mitigation hierarchy in accordance with National Policy.</p> <p>B) Proposals which may harm designated Local Wildlife Sites, Local Geological Sites, Priority Habitats, Priority Species, protected species or non-designated sites or features of biodiversity interest, will only be supported where:</p> <ol style="list-style-type: none"> 1. they use the DEFRA biodiversity metric to demonstrate that a proposal will deliver a minimum 10% net gain for biodiversity; 2. they protect, restore, enhance and provide appropriate buffers around wildlife and geological features and bridge gaps to link these to the wider ecological network; 3. they produce and deliver appropriate long term management plans for local wildlife and geological sites as well as newly created or restored habitats; 4. they can demonstrate that the need for a proposal outweighs the value of any features to be lost; and 	<p>therefore taken advantage of opportunities to protect and enhance biodiversity and accords with policy.</p> <p>The Scheme seeks to enhance, protect and restore the biodiversity and geodiversity through a range of measures.</p> <p>Mitigation hierarchy is embedded into the design and follows four sequential steps in order of avoidance, minimisation, restoration or rehabilitation, and offsets.</p> <p>Section 8.8 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out all the designated sites of ecological conservation importance; habitats; protected and notable species; and important ecological features, within an identified Study Area for the Scheme. Section 8.9 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] goes on to set out the potential impacts on the above receptors during construction, operation and decommissioning of the Scheme. Following the application of mitigation measures set out in Sections 8.10 of ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] no significant adverse effects have been identified during</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

5. if the permanent loss of a geological site is unavoidable, then provision will be made for the site to first be recorded by a suitably qualified expert.

C) Proposals which may impact Special Areas of Conservation, Special Protection Areas or RAMSAR Sites will only be supported where it can be demonstrated that there will be no likely significant effects and no adverse effects on the integrity of European sites, unless there are no alternative solutions and it is justified by an “imperative reasons of overriding public interest” (IROPI) assessment under the Habitats Directives.

D) Proposals that may either directly or indirectly negatively impact Sites of Special Scientific Interest will not normally be supported. Proposals should seek to protect and enhance Sites of Special Scientific Interest and maintain, strengthen, and bridge gaps to link them to the wider ecological network wherever possible.

E) In order to ensure development does not negatively impact on nightjar populations, proposals located within 3km of Thorne and Hatfield Moors Special Protection Area, that impact habitats that nightjars may use for feeding on, will only be supported where they deliver a net gain in nightjar foraging habitat.

construction, operation or decommissioning of the Scheme.

The proposed planting design is set out in the **Framework LEMP [EN010152/APP/7.14]** and includes the creation of new hedgerows, enhancement of existing hedgerows, planting of native scrub, neutral grassland, modified grassland, wet grassland, grassland scrapes, as well as enhancement of the riparian zone of the River Went within the north of the Solar PV Site. There will be an Ecology Mitigation Area, providing a large, contiguous area dominated by neutral grassland which offers habitat for a range of protected and notable species such as birds, small mammals, bats, reptiles and amphibians. In addition, areas beneath solar panels and in areas without solar panels will be planted with grassland. Additional hedgerow and tree planting will provide further suitable habitat for a range of species and help to maintain connectivity across the Order limits.

The Scheme will meet a minimum 10% BNG, consistent with the terms of the **Biodiversity Net Gain (BNG) Assessment [EN010152/APP/7.11]** and aligned with the proposals in the **Framework LEMP [EN010152/APP/7.14]**. The **BNG Assessment**

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 31: Local Wildlife and Geological Sites	Local Wildlife and Geological Sites will be identified and designated by the Council and are shown on the Policies Map. Other sites, including those awaiting designation, which can be demonstrated to meet the selection guidelines for Local Sites will be afforded the same level of protection.	<p data-bbox="1384 288 2098 400">[EN010152/APP/7.11] demonstrates that the Scheme has the potential to achieve significant biodiversity net gain on site.</p> <p data-bbox="1384 448 2098 671">A No Significant Effects Report (NSER) [EN010152/APP/7.12] has been prepared and concludes that there are no likely significant effects associated with the Scheme (alone or in combination) on internationally designated sites, with no loss of functionally linked land.</p> <hr/> <p data-bbox="1384 687 2098 1278">ES Volume I Chapter 8: Ecology [EN010152/APP/6.1] sets out that there are four non-statutory Local Wildlife Sites (LWS) located wholly or partially within the Order Limits, one of which, Went Valley LWS, is partly located in the northern part in the Solar PV Site and three of which are located in the Grid Connection Corridor. Wrancarr Drain and Braithwaite Delves LWS, Trumfleet Pit LWS and Trumfleet Pond LWS are all partially located within the Grid Connection Corridor. Therefore, Local Wildlife Sites have been identified on ES Volume II Figure 8-2: Sites Non-Statutorily Designated for their Biodiversity Value and are assessed in ES Volume I Chapter 8: Ecology [EN010152/APP/6.1].</p> <p data-bbox="1384 1286 2098 1396">During construction, the application of mitigation measures will ensure there is no impact on the integrity or the functioning of the LWS (through</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 32: Woodlands, Trees and Hedgerows	Proposals will be supported where it can be demonstrated that woodlands, trees and hedgerows have been adequately considered during the design process, so that a significant adverse impact upon public amenity or ecological interest has been avoided. There will be presumption against development that	<p>dust generation, noise or visual disturbance); that no construction related pollution would affect these LWS and consequently that there will be no species mortality of any species using these LWS. These standard environmental protection measures will be adopted during construction and are formalised in the Framework CEMP [EN010152/APP/7.7]. During operation and maintenance of the Scheme, there are no pathways (e.g. habitat loss or disturbance to designated site features (such as through noise, water quality, air quality, lighting or visual) which could affect LWS within the Order limits. Therefore, there are no impact pathways, either directly or indirectly, that would impact upon the integrity or functioning of these non-statutory designated sites during operation and maintenance of the Scheme. In addition, measures to remove impacts to LWS's during decommissioning are included within the Framework DEMP [EN010152/APP/7.9] and secured as part of the DCO.</p> <p>An Arboricultural Impact Assessment (AIA) (Appendix 10-7 of the ES [EN010152/APP/6.3]) has been produced setting out the likely direct and indirect impacts of the Scheme on trees. This concludes that tree loss to facilitate the Scheme represents only 1.2% (505,772 m²) of the total tree canopy.</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>results in the loss or deterioration of ancient woodland and/or veteran trees. Proposals will need to include:</p> <p>A) the submission of survey information of woodland, trees and hedgerows, as appropriate, to a recognised professional and fit for purpose standard which is able to demonstrate evaluation of these features for realistic long-term retention, and how this has positively informed the design process;</p> <p>B) demonstration of how retained features are to be protected during development;</p> <p>C) an adequate landscape buffer (which excludes built development and residential gardens) adjacent to existing woodlands, wildlife sites and at settlement edges;</p> <p>D) sufficient provision of appropriate replacement planting where it is intended to remove trees and hedgerows; and</p> <p>E) avoidance of the loss or deterioration of woodland.</p>	<p>All the trees removed are within the Order limits. No veteran or ancient trees are to be removed. The assessment also confirms that trees within Bunfold Shaw ancient woodland (located close to the boundary of the Solar PV Site) are not at risk of direct impact from the Scheme.</p> <p>Measures to protect retained trees and hedgerows will be put in place and secured through a detailed CEMP, DEMP and LEMP as requirements of Schedule 2 of the draft DCO [EN010152/APP/3.1]. These measures will need to be substantially in accordance with the measures set out in the Framework CEMP [EN010152/APP/7.7], DEMP [EN010152/APP/7.9] and Framework LEMP [EN010152/APP/7.14] to ensure that impacts are minimised and that the Scheme is implemented in accordance with the detailed management plans.</p>
<p>Policy 33: Landscape (Strategic Policy)</p>	<p>Proposals will be supported that take account of the quality, local distinctiveness and the sensitivity to change of distinctive landscape character areas and individual landscape features, in particular Thorne and Hatfield Moors. Development will be permitted provided</p>	<p>Section 10.6 of ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] describes the landscape baseline conditions through identification of physical and perceptual landscape characteristics within the Order limits and</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

that it conserves, enhances and, where possible, restores:

A) the landscape character and local distinctiveness of the area including its historical, biodiversity, cultural character and its tranquillity;

B) the distinctive setting of, and relationship between, settlements and buildings and the landscape including important views;

C) the nature conservation value of the area including the pattern of woodland, forests, trees, field boundaries, vegetation and other features;

D) the special qualities of rivers, waterways, wetlands and their surroundings; and

E) the topography of the area including sensitive skylines, hillsides and geological features.

Where development proposals will most likely result in a significant impact on the Borough's landscape the proposals should assess the potential impact (including cumulative impact) and propose how any negative effects will be minimised. In doing so consideration should be given to:

outlines the relevant landscape character assessments and studies at national, county and local levels.

In line with Part A and E of the policy, the Scheme is the result of an iterative design development process which was based on guidance provided in the relevant published landscape character assessments and sought to respond to the existing landform, while exploring reasonable opportunities to mitigate landscape and visual impacts.

As required by Part B, C and E of the policy, the Scheme is sited sensitively in the landscape, respecting the local settlements and the surrounding countryside, including natural features such as woodland, field boundaries and the topography of the landscape.

In accordance with Part D of the policy, the Scheme's design aims to protect the special qualities of rivers and their surroundings, by incorporating offsets of 10 m from watercourses. In particular, a substantial offset has been integrated along the southern side of the River Went, protecting the character of the river corridor through retaining a sense of openness. This would allow for an open mosaic of habitats

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>F) alternative site selection;</p> <p>G) the scale, massing, design, form, layout, orientation and/ or operation of the development;</p> <p>H) the incorporation of suitable mitigation measures; or</p> <p>I) where suitable mitigation measures are not achievable on site, then development should provide appropriate compensation off site. Landscape works shall be appropriate to the scale of the development in accordance with Policy 48 (Landscaping of New Developments).</p>	<p>to be retained along the river corridor, in keeping with local character and enhancing the green infrastructure network.</p> <p>ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] assesses that the Scheme would have significant adverse effects on a number of landscape receptors as a result of construction and decommissioning. The assessment also concludes that there would be significant adverse effects at year 1 of operation on five landscaper characters although this significance would reduce to one landscape character (LLCA 02 – Fenwick Farmlands) at year 15.</p> <p>ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1] explains how the Applicant has undertaken site selection and design in a proportionate way, in accordance with paragraphs 2.10.19 to 2.10.48 of NPS EN-3 (Ref. 3).</p> <p>An extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and effects of the Scheme as far as practicable, but some significant adverse residual effects on landscape character would remain by Year 15.</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
		<p>However, NPS EN-1 at paragraph 5.10.5 (Ref. 2) acknowledges that <i>“virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape.”</i> Paragraph 5.10.12 of NPS EN-1 (Ref. 2) also confirms that <i>“locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.”</i> In addition, the significant operational effects are localised and would be reversed following 40 years of operation through decommissioning.</p> <p>It is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of critical national priority infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape effects, and whilst they may be long term, the residual local landscape effects will also be temporary.</p>
Policy 34: Valuing our Historic Environment (Strategic Policy)	<p>Doncaster’s historic environment will be conserved in accordance with the following principles:</p> <p>A) Proposals and initiatives will be supported which preserve and, where appropriate, enhance the heritage significance and setting of the Borough’s heritage assets (including locally identified undesignated</p>	<p>As set out in ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] and summarised in Section 6.10 of this Planning Statement, specific mitigation measures, in line with the mitigation hierarchy, have been incorporated into the Scheme design where practical to preserve and enhance the historic environment.</p>

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heritage assets), and especially those elements which contribute to the distinct identity of the Borough. These include:

1. the nationally-important waterlogged archaeological remains at Sutton Common, Thorne Moor, and Hatfield Moor;
2. the Roman camps and settlements, motte and bailey castles, historic houses, historic parks and gardens and villages, with special regard to those along the Southern Magnesian Limestone Ridge;
3. the Georgian townscape and the railway heritage of Doncaster, its historic grain, including its street layouts and plot sizes and key views and vistas especially of the spires and towers of Doncaster's churches;
4. the Borough's historic market towns such as Thorne, Hatfield, Bawtry, and Tickhill;
5. early twentieth century suburban developments, including planned colliery villages; and
6. sites and structures associated with aviation history including the heritage of the second world war and cold war.

B) Proposals and initiatives will be supported which improve the accessibility and enjoyment of the Borough's existing and potential local, regional and national historic attractions in keeping with their heritage significance. These include:

1. The Mansion House
2. Cusworth Hall and its parkland

ES Volume I **Chapter 7 Cultural Heritage [EN010152/APP/6.1]** identifies there to be significant residual effects on Fenwick Hall moated site scheduled monument and Thorpe in Balne moated site, chapel and fishpond schedule monument. Significant cumulative effects have also been identified upon two Grade II listed buildings at Riddings Farm (comprising the Barn and granary immediately to the northwest of Lily Hall and the Dovecote and attached building on west side of farmyard at Riddings Farm).

All four designated assets have been assessed in the **Heritage Statement** (see **Appendix C** of this Planning Statement) to result in 'less than substantial harm' owing mainly to the temporary and reversible change to the setting of the assets at Thorpe in Balne and Fenwick Hall moated sites and the lesser, non-significant contribution of the Scheme to the identified cumulative impact at Riddings Hall.

The substantial public benefits and need for the Scheme, as set out in Section 5 of this Planning Statement including the delivery of critical national priority infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments,

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>3. Doncaster Minster (St. George’s Church) 4. Conisbrough Castle 5. Brodsworth Hall and parkland.</p> <p>C) Proposals and initiatives will be supported which identify, promote and secure the long term future of Doncaster’s heritage assets. These include:</p> <ol style="list-style-type: none"> 1. increasing and making publically available our knowledge and understanding of the historic environment gained through the planning process; 2. continuing to review existing and prospective parks and gardens of local historic interest and consideration of the designation of buildings of local architectural and historic interest; 3. the identification of heritage assets at risk and implementing strategies and initiatives to reduce their number through positive management; 4. supporting the reuse of sites and buildings of heritage significance putting them to viable uses consistent with their conservation; and 5. supporting investment in the repair and maintenance of Doncaster’s historic buildings. 	<p>clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.</p>
<p>Policy 35: Understanding and Recording the Historic Environment</p>	<p>Proposals that affect known or potential heritage assets will require:</p> <p>A) The provision of a heritage statement (or its equivalent) that includes:</p>	<p>As required by Policy 35, ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] and its supporting appendices [EN010152/APP/6.3] provide an assessment of the likely effects of the Scheme on heritage</p>

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1. sufficient information to gain an understanding of the potential impact that the proposals will have on the significance of any heritage assets or historic environment likely to be affected; and
2. for heritage sites with archaeological interest, at least a desk-based assessment and, where appropriate, the results of a field evaluation.

B) In the exceptional circumstances where harm could be justified, detailed investigation and recording will be required to an agreed standard in advance of any alteration, demolition or groundwork to ensure that an understanding of the affected heritage asset is gained and that knowledge is widely publicised including deposition of the site archive with the relevant archive repository and deposition of a report on the results with the South Yorkshire Sites & Monuments Record (Historic Environment Record).

assets. This includes a description of the significance of the heritage assets and the contribution of their setting to their significance.

A detailed baseline is set out in **ES Volume III Appendix 7-2: Cultural Heritage Desk-Based Assessment [EN010152/APP/6.3]**. This includes the results of a geophysical survey undertaken on the Solar PV Site between May and October 2023 (refer to **ES Volume III Appendix 7-4: Geophysical Survey Report [EN010152/APP/6.3]**) and is informed by interim fieldwork results of trial trenching.

In addition, a **Heritage Statement** (Appendix C of this Planning Statement) has been prepared which sets out the harm predicted upon seven designated heritage assets.

Policy 36: Listed Buildings

Development proposals affecting a listed building or its setting will be assessed against the following principles:

- A) Proposals that enhance or better reveal the significance of a listed building or structure will be supported. Proposals that harm the significance of a listed building or its setting will not be supported other than in circumstances where that harm is clearly outweighed by the public benefits of the proposal

There are no listed buildings within the Order limits. Four listed buildings have been identified as having the potential to be impacted by the Scheme and are assessed in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**, its supporting **appendices [EN010152/APP/6.3]** and a **Heritage Statement** (Appendix C of this Planning Statement):

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having regard to the significance of the heritage asset affected.

B) Alterations and extensions to a listed building will be considered acceptable where they are sympathetic to the historic proportions and massing of the building; make use of materials that complement the materials used on the building; and preserve and enhance its special interest.

C) Measures for improving the energy efficiency of a listed building will be supported where they do not conflict with its special interest as a listed building. Where there is a conflict of interest the Council will weigh the public benefits of the proposal against the harm to the listed building having regard to the significance of the heritage asset.

D) A proposal for a change of use to a listed building would be considered acceptable where it does not harm its heritage significance. Where a change of use requires significant alterations with potential harm to the listed building it will be necessary to demonstrate that the proposed alterations are necessary to secure the long term survival of the listed building.

E) Permission will not be granted for proposals which would result in substantial harm or total loss of a listed

- Fenwick Hall and its associated barn and attached outbuildings and shelter shed and attached loose box (all Grade II listed buildings).
- Lilly Hall (at Riddings Farm) and its associated barn and granary and dovecote and attached outbuilding (all Grade II listed buildings).
- Thorpe in Balne moated site, chapel and fishpond (scheduled monument and Grade II* listed building).
- Glebe Farmhouse and its associated barn (Grade II listed buildings).

As reported in **ES Volume I Chapter 7: Cultural Heritage [EN010152/APP/6.1]**, the Scheme will result in significant residual effects on the Thorpe in Balne moated site, chapel and fishpond (including Grade II* listed buildings). This effect is temporary as it relates to the construction phase of the Grid Connection Corridor.

Significant cumulative effects are also reported upon two Grade II listed buildings at Riddings Farm. This effect is due to the consented demolition of the associated Grade II listed 'Lily Hall' farmhouse (by planning applications ref. 22/01536/FUL and 22/01537/LBC). No

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building or structure unless the building cannot reasonably be repaired and the Council is satisfied that every effort has been made to secure, repair, or reuse the building, to find an alternative use through maintenance, grant assistance, or offer for sale or lease, or, that there are substantial and demonstrable public benefits to be gained which outweighs the loss of the building.

significant effects are reported on the listed buildings at Fenwick Hall and Glebe Farmhouse.

As is assessed in the Heritage Statement (see Appendix C of this Planning Statement), Thorpe in Balne moated site will result in 'less than substantial harm' owing mainly to the temporary change to the setting of the assets. The Statement also notes that the greater impact on the two Grade II listed buildings at Riddings Farm arises from the loss of the demolition of 'Lily Hall' farmhouse, whereas the Scheme makes a lesser, non-significant, contribution to the identified cumulative impact. Therefore, less than substantial harm is also assessed in the Heritage Statement. Less than substantial harm (at the lower end of the spectrum) is also reported upon the listed buildings at Fenwick Hall and Glebe Farmhouse.

As set out in **ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1]**, in accordance with the mitigation hierarchy, the Scheme design has been carefully considered to avoid, reduce or mitigate potentially significant effects on heritage assets.

The substantial public benefits and need for the Scheme, as set out in Section 5 of this Planning Statement including the delivery of critical

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 39: Development Affecting Archaeology	<p>Development affecting archaeological remains will be assessed against the following principles:</p> <p>A) Development that would result in harm to the significance of a scheduled monument or other nationally important archaeological assets will not be permitted other than in exceptional circumstances.</p> <p>B) Development affecting other archaeological assets will need to demonstrate how any benefits will outweigh harm to the site. When development affecting such sites is justifiable, the Council will seek to ensure preservation of the remains in situ as a preferred solution. When in situ preservation is not justified, the developer will be required to make adequate provision for appropriate investigation and recording including excavation in accordance with Policy 35.</p>	<p>national priority infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.</p> <p>As set out in ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1], a programme of archaeological evaluation surveys of the Solar PV Site has been undertaken. This has identified areas of archaeological interest that have been set out as Heritage Buffer Areas within the Scheme design to enable preservation in-situ of these remains.</p> <p>ES Volume I Chapter 7 Cultural Heritage [EN010152/APP/6.1] also reports significant effects on known and potential buried archaeological remains located within the Order Limits. However, additional mitigation measures are proposed, which could include design measures such as micro-siting of Scheme elements and the use of pre-cast concrete blocks rather than piled mounts within the Solar PV Site to enable preservation in-situ of archaeological remains, and/or archaeological excavation and recording where avoidance by design cannot be implemented. The mitigation measures will be set out within the Final Archaeological Mitigation Strategy (AMS) which will be agreed with South Yorkshire Archaeology</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 40: Buildings or Structures of Local Historic Interest	<p>Development proposals affecting buildings that meet the criteria of buildings of local historic interest, either as part of a local list or as part of the planning application process, will be assessed against the following principles:</p> <p>A) Proposals which retain those elements of a building of local historic interest which have been identified as contributing to its heritage significance, or proposals which better reveal its significance will be supported.</p> <p>B) Proposals should seek to avoid harm to those features, including setting, which contribute to the significance of the building of local historic interest. Where proposals result in harm or substantial harm to the significance of a building of local historic interest a balanced judgement will be made taking into account the degree of harm and relative significance of the heritage asset.</p>	<p>Service and is secured by requirement 10 of Schedule 2 in the draft DCO [EN010152/APP/3.1], which requires the AMS to be substantially in accordance with the Draft AMS [EN010152/APP/7.19] submitted with the DCO Application.</p> <p>As set out in ES Volume II Chapter 7 Cultural Heritage [EN010152/APP/6.1] three non-designated heritage assets were identified for further assessment:</p> <ul style="list-style-type: none">• Hags Farm – An 1815 farmhouse situated on the eastern outskirts of the hamlet of Fenwick, on Lawn Lane;• Croft Farm – An 1815 farmhouse located on the eastern outskirts of the hamlet of Fenwick, on lawn Lane; and• West End Farm – An 1854 farmhouse situated on the west side of West Lane. <p>With the incorporation of mitigation measures (including the exclusion/avoidance of siting Solar Panels in specific areas, retention of hedgerows, creation of panel free buffer zones, creation of ecology/ heritage mitigation areas and screening planting), ES Volume II Chapter 7 Cultural Heritage [EN010152/APP/6.1] concludes that there would be a negligible</p>

Relevant Paragraph/Policy Reference

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Policy 41: Character and Local Distinctiveness (Strategic Policy)

Imaginative design and development solutions will be encouraged, including innovative and contemporary architecture and public art, to ensure that proposals respect and enhance identity, character and local distinctiveness through adherence to the following principles:

A) Development proposals will be supported where they:

1. recognise and reinforce the character of local landscapes and building traditions;
2. are of a high quality design that contributes to local distinctiveness;
3. respond positively to their context, setting and existing site features, respecting and enhancing the character of the locality; and
4. integrate visually and functionally with the immediate and surrounding area at a settlement, neighbourhood, street and plot scale.

B) Where an applicant wishes to utilise standardised or 'off the shelf' designs they should, where necessary, be adapted to complement or re-interpret local character, or make them more distinctive by developing an appropriate locally inspired new identity and appearance for the development.

C) Neighbourhood plans and applications for development should consider the potential for inclusion

impact on the three non-designated heritage assets.

In developing the design rationale for the Scheme, the Applicant undertook a review of relevant national and local planning policy and guidance, to ensure that good design principles were embedded into the Scheme at the early stages.

Design principles were developed which have informed the likely design of the Scheme. Maximum extents and parameters for components of the Scheme are set out in the **Outline Design Parameters Statement [EN010152/APP/7.4]**

As outlined in the **Design and Access Statement [EN010152/APP/7.2]**, the Scheme delivers good design, being in accordance with the design policies set out in the NPSs in the context of efficiently delivering large scale renewable energy infrastructure where it is recognised in national policy that the extent to which a scheme can contribute to the enhancement of the quality of the area is limited. The Scheme design does however include embedded and additional measures that will deliver biodiversity enhancements, maintains connectivity and proposes a landscape strategy (outlined in the **Framework**

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of public art policies and proposals which capture the imagination and identity of local communities, including modest or subtle works for smaller developments.

D) Major urban extensions, high profile and prominent developments (including those within areas visited or seen by large numbers of people), and new public spaces will be expected to provide or make a contribution toward permanent public art. Key priority areas for art include, but are not limited to: Doncaster Town Centre (including the Market Place, Station Square, Retail Core, Civic Quarter, Waterfront and Minster Canalside), Thorne and Mexborough Town Centres, other local, district and out of town shopping centres, the Airport, and main transport corridors and key gateway locations identified on the Policies Map.

E) In all cases, applications and design proposals will need to demonstrate an understanding of the context, history, character and appearance of the site, adjacent neighbourhood and the wider area, to inform the appropriate design approach. For major applications this understanding should be informed by the views of local communities affected by the proposal, and alongside the adopted design approach, is to be clearly explained and presented within the Design and Access Statement.

LEMP [EN010152/APP/7.14]) which is sensitive to its surroundings, by reducing the Scheme’s impact on the landscape and providing opportunities for screening to protect residential amenity.

The location and design of the Scheme accords with the site selection and technical considerations set out in NPS EN-3 for large scale solar development. The Scheme will also deliver a high quality solar development design that has responded to the local and surrounding context in accordance with Policy 41, parts A and E.

Policy 42: Good Urban Design (Strategic Policy)

High quality development that reflects the principles of good urban design will be supported. Proposals for new development will be expected to follow a best practice inclusive design process and where appropriate use

As detailed in the **Design and Access Statement [EN010152/APP/7.2]** and Section 6.3 of this Planning Statement the Scheme has undergone an iterative design process which

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established design tools to support good urban design. For major applications of over 0.5 hectares or 10 or more residential units, this should include making use of pre-application engagement with the Council and affected community, and utilising Design Review. Employing good design will help create quality places which are cherished, sustainable and stand the test of time.

A) New development will be expected to optimise the potential of a site and make the most efficient use of land whilst responding to location, local character, relevant spatial requirements and design standards. In appropriate instances, such as highly sustainable locations with good public transport accessibility, this could involve maximising the density of development to an appropriate level.

B) In all cases, the components of a development, including: use mix, layout (structure, movement patterns, townscape, landscaping, open space and public realm), density (intensity of use), form (scale, height, massing), and appearance (architectural qualities, details, materials, boundary treatments), must be designed and assessed to ensure that the proposal is attractive and appropriate to the area, robustly designed, works functionally, and incorporates the following qualities of a successful place:

has resulted in the delivery of a functional and efficient Scheme design which will deliver a large amount of renewable and low carbon electricity while being sensitive to the local context and surrounding area, avoiding and minimising impacts on the environment as far as practicable. The design process, basis of design decisions, and evolution of the Scheme's design is summarised in **Chapter 3:**

Alternatives and Design Evolution of the ES [EN010152/APP/6.1] and the **Design and Access Statement** [EN010152/APP/7.2].

The Scheme's design, including access design, has been developed by a team of qualified and experienced professionals comprising solar energy engineers; highway engineers; planners; landscape architects; ecologists; heritage specialists; and other environmental professionals.

Good design has been a key consideration from the outset. The LVIA has informed the iterative design process, as detailed in the **Design and Access Statement** [EN010152/APP/7.2]. The design and layout of the Scheme has been informed and developed in response to policy requirements, published landscape character assessment guidance. Design mitigation has been embedded into the Scheme to minimise effects on landscape character and visual

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1. characterful, attractive and welcoming with its own identity appropriate to the area (refer to Policy 41);
2. well integrated with the built, natural and historic environment;
3. continuous and enclosed streets and spaces, defined by buildings which incorporate active frontages;
4. safe and secure private property, public areas and the adoptable highway ensuring access points, street design, parking and operational highway requirements safely cater for pedestrians, cyclists and vehicles;
5. connected, walkable and easy for pedestrian and cycle movement with good access to local facilities and public transport services;
6. attractive and durable streets and public realm which prioritise people over vehicles, encourage social interaction and use good quality materials, landscaping, street furniture, lighting and signage;
7. legible, easy to understand and to navigate around;
8. adaptable, flexible and capable of changing over time;
9. inclusive and accessible, promote social cohesion and meet the needs of as much of the population as possible;
10. vibrant and busy with a mix of uses where appropriate;
11. reduce carbon emissions, adapt to climate change and make efficient use of natural resources during construction and operation through measures such as

amenity as outlined in the **Framework LEMP [EN010152/APP/7.14]**. The landscape design principles incorporate the following:

- Careful siting in the landscape responding sensitively to its proximity to dwellings, settlements and PRoW.
- Conserving the existing vegetation patterns including reinstatement and/or improvement of field boundaries.
- Creating new green infrastructure including areas for woodland belts and screening.
- Sensitive design in relation to form and materials.

As set out in Section 6.6 of **ES Volume I Chapter 6: Climate Change [EN010152/APP/6.1]**, climate change resilience measures (such as flood resilience) are built into the Scheme and in relation to the different phases of the Scheme, are set out in the **Framework CEMP [EN010152/APP/7.7]**, **DEMP [EN010152/APP/7.9]** and **Framework LEMP [EN010152/APP/7.14]**, with the detailed versions of these documents secured by requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**.

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>orientation, layout, inclusion of technology and material selection; and</p> <p>12. include measures to ensure they are well managed and maintained.</p> <p>C) The Council will require the use, submission, or preparation of urban design ‘tools’ to provide greater certainty over design intentions and secure development quality, particularly for major applications and multi-phase developments. The tools include masterplans, design guides, design codes, development briefs, and the use of planning conditions. The Council will also provide design guidance, including the use of Supplementary Planning Documents, and by preparing briefs where required.</p>	
<p>Policy 46: Design of Non-Residential, Commercial and Employment Developments (Strategic Policy)</p>	<p>All non-residential and commercial developments, including extensions and alterations to existing properties, must be designed to be high quality, attractive, and make a positive contribution to the area in which they are located by meeting the following requirements:</p> <p>A) Proposals will be supported where they are designed to:</p> <p>1. be sympathetic to local character and/or the host property in terms of their layout, siting, height, massing, form, scale, detailing, materials, landscaping or, where appropriate, their heritage significance;</p>	<p>In developing the design rationale for the Scheme, the Applicant undertook a review of relevant national and local planning policy and guidance, to ensure that good design principles were embedded into the Scheme at the early stages.</p> <p>Design principles were developed which have informed the likely design of the Scheme. Maximum extents and parameters for components of the Scheme are set out in the Outline Design Parameters Statement [EN010152/APP/7.4]</p>

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2. have no unacceptable negative effects upon the amenity of neighbouring land uses or the environment;
 3. promote accessibility and way-finding for all travel modes through the layout of the movement network, landscape strategy and building design;
 4. meet functional requirements, whilst being architecturally appropriate, with interesting and visually attractive elevations which convey a sense of permanence;
 5. reduce the scale of bulky buildings and bland elevations by breaking down building mass and using better quality human scale materials and detailing for prominent and heavily used parts of the building;
 6. locating parking, servicing and storage areas unobtrusively and reducing their visual impact through landscaping and boundary treatments;
 7. ensure parking areas do not reduce building line continuity and/or create large gaps in street frontages to an unacceptable extent; and
 8. be well landscaped, include provision of amenity areas for occupiers, visitors or workers, and ensure good quality external works are coordinated across the site.
- Retail, commercial and mixed use proposals will be supported where they also:
9. respect, and where appropriate enhance, the character and setting of existing street frontages in

As outlined in the **Design and Access Statement [EN010152/APP/7.2]**, the Scheme delivers good design, being in accordance with the design policies set out in the NPSs in the context of efficiently delivering large scale renewable energy infrastructure where it is recognised in national policy that the extent to which a scheme can contribute to the enhancement of the quality of the area is limited.

In respect of parts A1, A2 and A8 of Policy 46, the layout of the Scheme has been designed to minimise so far as practical, the impact on the local character, residential amenity and the environment. The Scheme developed design principles to guide the design evolution, taking into account: Network connection, irradiance, topography, landscape character, visual receptors, land use, ecology, heritage, flood risk and accessibility. The Scheme has therefore been designed so far as possible to avoid so far as possible, environmental and residential constraints.

The Scheme proposes a robust landscape strategy (outlined in the **Framework LEMP [EN010152/APP/7.14]**) which reduces the Scheme's impact on the landscape and

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terms of active frontage, plot widths, established building lines, shop-front proportion and rhythm;
10. consider advertisements, signage, and security measures so they are not overly prominent or dominant and contribute to the visual character and vitality of the street scene;
11. ensure shop-fronts relate well to the building in which they are located in terms of proportion, elevation design, relationship to upper storeys, fascia height and width, mullion treatment, materials, and colour; and
12. ensure that historic shop-fronts are retained unless their loss can be justified.
B) New major non-domestic applications (1000m² floorspace or more, or a site of 1 hectare or above) must meet the BREEAM rating of at least 'Very Good', or any agreed equivalent standard, and secure at least 10% of their regulated energy from renewable sources (or equivalent carbon emission reductions). Large footprint buildings should ensure roofs are designed to accommodate the potential for solar panel arrays. This should be demonstrated through the submission of preliminary assessments at planning application stage.

providing opportunities for screening to protect residential amenity.

In respect of parts A3 and A8 of Policy 46, the Scheme has taken account of the PRowS impacted either temporarily or permanently by construction, operation or decommissioning. PRow, access to all existing PRow will be retained during construction, with only a very limited number of PRow diversions necessitated by the Scheme. During the Scheme operation, the existing PRow passing through or running adjacent to the Order limits are expected to be unaffected, aside from Sykehouse 29, Moss 6 and Fenwick 14 that will be permanently diverted.

Mitigation measures will be implemented to minimise the traffic impacts of the Scheme on the highway network during the construction and decommissioning phases. These measures are secured through management plans which are requirements of Schedule 2 in the **draft DCO [EN010152/APP/3.1]** and will need to be substantially in accordance with the **Framework Construction Traffic Management Plan (CTMP) [EN010152/APP/7.17]**, as well as the **Framework CEMP [EN010152/APP/7.7]** for the construction phase, and the **Framework DEMP**

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 47: Safe and Secure Places	<p>The Local Plan aims to create safe and accessible environments where crime and disorder, and the fear of crime, do not undermine quality of life or community cohesion. Developments will be supported which are designed in a way that reduces the risk of crime and the fear of crime by ensuring that they create:</p> <ul style="list-style-type: none">A) places which foster ownership and appropriate levels of human activity;B) access points and routes that are limited to only those necessary to create a convenient, connected, and direct movement network;C) ground floor active frontage to public areas avoiding blank elevations and potential hiding places;D) layouts and designs that encourage natural surveillance of streets, public spaces, parking areas, cycle and pedestrian routes, and which are well lit to appropriate standards with good sight lines;E) allocated residential car parking that is visible from the occupants home, or secured in garages;F) public, private and semi-private spaces that are defensible, clearly demarcated and well defined through the use of robust boundary treatments appropriate to the level of risk and character of the area;	<p>[EN010152/APP/7.9] for the decommissioning phase.</p> <hr/> <p>ES Volume I Chapter 2: Scheme Description [EN010152/APP/6.1] outlines the security measures incorporated in the design of the Scheme design.</p> <p>Proposed fencing has been designed to minimise its visual prominence during operation. Pole mounted internal facing closed circuit television (CCTV) systems are proposed around the perimeter of the operational areas of the Solar PV Site. These will not require lighting and will use infrared technology at night. The Solar PV Site will not require artificial lighting other than during temporary periods of maintenance/repair and for the On-Site Substation, BESS and Operations and Maintenance Hub during the winter months (in early mornings and evenings only) to maintain safe working conditions.</p> <p>Efforts have been made to reduce the impact of security fencing and lighting, as set out in the Framework LEMP [EN010152/APP/7.14], Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8] and Framework DEMP [EN010152/APP/7.9], with final, detailed versions of these documents</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>G) security fencing (where appropriate) that provides a robust and effective barrier, but does not contribute to a hostile appearance;</p> <p>H) clearly defined ownerships and management and maintenance responsibilities for all external areas; and</p> <p>I) CCTV (when required) which has good coverage whilst retaining privacy of adjacent private property.</p>	<p>being secured as requirements in Schedule 2 of the draft DCO [EN010152/APP/3.1].</p>
<p>Policy 48: Landscaping of New Developments</p>	<p>Development will be supported which protects landscape character, protects and enhances existing landscape features, and provides a high quality, comprehensive hard and soft landscape scheme that includes:</p> <p>A) maximising links to wider Green Infrastructure in line with Policy 26;</p> <p>B) the provision of Sustainable Drainage Systems and designs that facilitate floodplain compensation and preservation of flood flow routes where appropriate;</p> <p>C) generous tree, shrub and hedgerow planting consisting of appropriate species and nursery stock specified for the location, role and prominence of the landscape feature, and to provide year round interest;</p> <p>D) fit for purpose, attractive hard and soft landscaping including; planting, surfacing materials, boundary treatments and street furniture, for all external environments,</p> <p>E) appropriate, robust, low maintenance surfacing materials for public areas and the adoptable highway, which should include more attractive finishes (including</p>	<p>As set out in ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1], the overall objective of the landscape strategy for the Scheme is to sensitively integrate the Scheme into the landscape, avoiding or minimising adverse landscape and visual impacts as far as practicable.</p> <p>The creation of new green infrastructure is a key element in the design of the Scheme. Grassland and new planting have been embedded into the Scheme to provide landscape and visual mitigation. This includes the ‘gapping up’ of hedgerows where they are currently fragmented, to improve landscape structure and ecological connectivity. Substantial offsets will also be created along the eastern side of the Fleet Drain and along the southern side of the River Went to enhance the green infrastructure network. More details are provided in the Framework Landscape and</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>block paving) in key focal spaces and lightly trafficked carriageways; and</p> <p>F) a long-term management and maintenance strategy with clear responsibilities and regimes for the upkeep of all external areas.</p>	<p>Ecological Management Plan [EN010152/APP/7.14].</p> <p>Sensitive design in relation to form and materials has also been considered: fencing around the Solar PV Site would be timber posts with stock proof mesh-type fencing, measuring up to 2.2m high, allowing visual permeability and thereby minimising its visual impact.</p> <p>The proposed surface water drainage design is set out in the Framework Drainage Strategy (ES Volume III Appendix 9-4 [EN010152/APP/6.3]) and includes SuDS provision.</p> <p>The Framework Operational Environmental Management Plan [EN010152/APP/7.8] provide a clear and consistent approach to the control of operational and maintenance activities within the Order limits, including those related to surface water drainage.</p>
Policy 50: Health (Strategic Policy)	<p>The Council will improve and promote strong, vibrant and healthy communities by ensuring a high quality environment is provided with local services to support health, social and cultural wellbeing. In order to help achieve this the Council will require:</p> <p>A) development to positively contribute to creating high quality places that support and promote healthy</p>	<p>The Scheme has been designed to have minimal impact on PRoW. Access to all existing PRoW will be retained during construction, with no proposed PRoW closures and a limited number of PRoW diversions necessitated by the Scheme. The permanent diversions would increase their journey length by minimal distances (less than 50 m) and would be</p>

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communities and lifestyles, such as maximising access by walking and cycling;

B) provision of good access to leisure facilities, greenspace and the countryside;

C) developments designed to encourage and support healthy lifestyles;

D) that the healthcare infrastructure implications of any relevant proposed development have been considered and addressed when and where necessary;

E) controlling the location of, and access to, Food and Drink Uses, and

F) that proposals for development or change of use will be assessed against the Health Impact Assessment Screening Tool and, when determined if required, the developer will demonstrate they have undertaken, and responded to the findings of, a Health Impact Assessment (HIA).

constructed to the same or better standard as existing PRow, meaning no significant adverse effects on PRow users are therefore anticipated. Provision for cycle parking to accommodate the expected demand of workers will also be provided as part of the Scheme. Other measures include a car share system and a shuttlebus service will transfer non-local workers to/ from local worker accommodation or pick-up locations.

ES Volume I Chapter 12: Socio-Economics and Land Use [EN010152/APP/6.1] assess the developments impacts on healthcare infrastructure. During the construction phase, there will be an increase in the number of workers in the area due to the construction of the Scheme. Due to the limited scale of impacts upon healthcare services, the short-term duration of effect and reversibility, the magnitude of these adverse impacts is assessed to be very low, which results in a minor adverse effect for the high sensitivity population and a negligible effect.

Chapters of the ES have presented effects of the Scheme which have the potential to impact on both physical and mental health, but none have identified likely significant adverse effects

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Policy 54: Pollution

Development proposals that are likely to cause pollution, or be exposed to pollution, will only be permitted where it can be demonstrated that pollution can be avoided, or where mitigation measures (such as those incorporated into the design and layout of development) will minimise significantly harmful impacts to acceptable levels that protect health, environmental quality and amenity. When determining planning applications, the agent of change principle will be applied, and particular consideration will be given to:

A) an assessment of the risks to public health and the impact of cumulative effects and where necessary that the provision for mitigation against the total effects has been provided.

B) the presence of noise generating uses close to the site, and the potential noise likely to be generated by the proposed development. A Noise Assessment will be required to enable clear decision-making on any relevant planning application. Proposals will need to have regard to the standards identified in Appendix 11 to establish if the proposal is acceptable in noise impact terms.

during the various phases of the Scheme with respect to the impacts on health.

The Scheme demonstrates that through incorporated design and appropriate mitigation the development will not lead to any significant adverse effects on human health, environmental quality and amenity due to the potential pollution of the Scheme.

In respect of part A, chapters of the ES have presented effects of the Scheme which have the potential to impact on both physical and mental health, but none have identified likely significant adverse effects during the various phases of the Scheme with respect to the impacts on health.

In respect of part B, with the implementation of mitigation measures significant adverse noise and vibration effects during the construction, operation and decommissioning of the Scheme will be avoided at sensitive receptors. Mitigation measures have been embedded into the Scheme design and construction methodology to minimise adverse effects where practicable, as set out in Section 11.7 of **ES Volume I Chapter 11: Noise and Vibration [EN010152/APP/6.1]**.

In respect of part C, **ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1]** concludes

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C) the impact on national air quality; especially but not limited to Air Quality Management Areas, areas potentially close to the EU limit value, other sensitive areas and the aims and objectives of the Air Quality Action Plan. An Air Quality Assessment will be required to enable clear decision making on any relevant planning application.

D) any adverse effects on the quantity, quality and ecology features of water bodies and groundwater resources, including contamination to Source Protection Zones.

E) the impact of artificial lighting. Artificial lighting has the potential to cause unacceptable light pollution in the form of sky-glow, glare or intrusion onto other property and land. Development proposals should ensure that adequate and reasonable controls to protect dwellings and other sensitive property, the rural night-sky, observatories, road-users, and designated sites for conservation of biodiversity and protected species are included within the proposals.

that there are no anticipated significant effects on air quality as a result of the Scheme. Mitigation measures are presented in the **Framework CEMP [EN010152/APP/7.7]** and **Framework DEMP [EN010152/APP/7.9]** submitted with the DCO Application.

In respect of part D, the **Framework CEMP [EN010152/APP/7.7]** sets out that an Ecological Clerk of Works (ECoW) will provide advice about environmental and ecological issues during construction including for example, pollution, air quality and noise.

ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents an assessment of the likely significant effects on the water environment. Embedded mitigation measures set out in Section 9.8 of **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** result in no significant adverse effects on the pollution of surface water and groundwater features.

ES Volume III Appendix 9-2: WFD Assessment [EN010152/APP/6.3] concludes that there would be no deterioration in the status of any WFD waterbody classification and no prevention of future improvement in status, given the mitigation built into the Scheme.

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
		<p>A Water Management Plan (WMP) (which will be produced post consent) will include details for water quality monitoring and pollution prevention and control. The WMP will be a management plan that is brought forward as part of the detailed CEMP to be secured by a requirement of the DCO and to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7].</p> <p>In respect of part E, ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1] includes an assessment of the potential landscape and visual impacts associated with the construction, operation and decommissioning of the Scheme on local amenity, including an assessment of light pollution impacts. The lighting proposed for the Scheme is minimal. During operation, permanent security lights with motions detectors will be used for security purposes. No areas of the Solar PV Site are proposed to be permanently lit. During construction as far as practicable, works will be limited to daylight hours only, with mobile lighting towers used during winter months where necessary.</p>
Policy 55: Contamination and Unstable Land	Development on land that is unstable, currently contaminated or suspected of being contaminated due to its previous history or geology, or that will potentially	ES Volume I Chapter 14.4 Ground Conditions [EN010152/APP/6.1] outlines a Preliminary

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>become contaminated as a result of the development, will require the submission of an appropriate Preliminary Risk Assessment. Proposals will be required to mitigate contamination or land stability by:</p> <p>A) demonstrating there is no significant harm, or risk of significant harm, to human health, or land, natural environment, pollution of soil or any watercourse or ground water;</p> <p>B) ensuring necessary remedial action is undertaken to safeguard users or occupiers of the site or neighbouring land and protect the environment and any buildings or services from contamination during development and in the future;</p> <p>C) demonstrating that adverse ground conditions have been properly identified and safely treated; and</p> <p>D) clearly demonstrating to the satisfaction of the Local Planning Authority, that the land is suitable for its proposed use.</p>	<p>Risk Assessments (PRA) finding of the existing ground conditions.</p> <p>Risk to human health, controlled water and other sensitive receptors have been identified as between very low to low within Phase 1 PRA reports. The full details of the findings are detailed within ES Volume III, Appendix 14-3: Phase 1 Preliminary Risk Assessment – Solar PV Site [EN010152/APP/6.3] and ES Volume III, Appendix 14-4: Phase 1 Preliminary Risk Assessment – Grid Connection Corridor [EN010152/APP/6.3].</p> <p>An intrusive site investigation and Quantitative Risk Assessment (GQRA) is proposed to be undertaken prior to construction, in the areas of potential contamination.</p> <p>Following implementation of the recommendations of the GQRA (to be completed post-consent) into the detailed CEMP, along with the environmental design and management measures, for the construction, operation and decommissioning phases, the risk to human health, controlled waters and other sensitive receptors is considered acceptable.</p>
<p>Policy 56: Drainage</p>	<p>Development sites must incorporate satisfactory measures for dealing with their drainage impacts to</p>	<p>ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents an assessment</p>

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ensure waste water and surface water run-off are managed appropriately and to reduce flood risk to existing communities. Proposals will be supported therefore in line with the following requirements: A) There is adequate means of foul sewage disposal and treatment or that capacity can be made available in time to serve the development. B) They will not increase flood risk on site and ensure no flooding to land or buildings elsewhere. C) They achieve a reduction in surface water run off on brownfield sites, and no increase on existing rates for greenfield sites. D) They secure the removal of culverting and avoid building over a culvert or new culverting of watercourses and a 10 metre buffer zone is left free from development from the water's edge; E) They make use of Sustainable Drainage Systems unless it can be shown to be technically unfeasible. F) They dispose of surface water appropriately according to the following networks in order of preference:

1. to an infiltration based system wherever possible (such as soakaways).
2. discharge into a watercourse with the prior approval of the landowner and navigation authority (following treatment where necessary).
3. discharge to a public water sewer or highway drain.

of the likely significant effects on the water environment. Embedded mitigation measures set out in Section 9.8 of **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** result in no significant adverse effects on the pollution of surface water and groundwater features.

ES Volume III Appendix 9-4 Framework Drainage Strategy [EN010152/APP/6.3] outlines the approach to the management of foul drainage from offices on site in accordance with part A.

ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2] confirms that the Scheme will not increase flood risk on or off site in accordance with part B. Embedded mitigation measures are set out in Section 9.8 of **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]**.

ES Volume III Appendix 9-4 Framework Drainage Strategy [EN010152/APP/6.3] confirms that greenfield run off rates can be achieved in accordance with part C.

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In accordance with part D **ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2]** confirms that the Scheme proposes, as a design principle, to utilise existing water crossing locations (where practicable) to avoid the need for new crossings. However, should a new crossing be required, an open span bridge crossing will be used, with the specific type of crossing selected being determined based on site specific factors and in consultation with the relevant authority (generally the IDB/LLFA for the Solar PV Site). It also confirms that Solar PV Panels and ancillary infrastructure (such as Field Stations) will be set back from all water features by at least 10 m (measured from the bank top) to create a buffer zone. The buffer from water features, together with the measures to be outlined within the Construction Environmental Management Plan (CEMP) (see **Framework Construction Environmental Management Plan (CEMP) [EN010152/APP/7.7]**), will ensure all construction activities for the installation of Solar PV Panels and infrastructure would be offset from surface watercourses, other than where there is a need for crossing of a watercourse (such as for cabling installation or possible temporary access) or connection for surface

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 57: Flood Risk Management	<p>A) All development proposals will be considered against the NPPF, including application of the sequential test and, if necessary, the exception test.</p> <p>B) The extent and detailed boundaries of the functional flood plain (flood zone 3b) are identified through the Council’s Strategic Flood Risk Assessment, in agreement with the Environment Agency, where national policy will be applied.</p> <p>C) All windfall development proposals outside of Development Allocations in Flood Zones 2 and 3a will be supported as follows:</p> <p><u>Housing; some commercial, and business and service and general industrial (E(c), E(g) (except for E(g(i)) Offices) & B2 use classes) for proposals at Tiers 1 to 3</u></p>	<p>water drainage (that may be for temporary works or for the operational Scheme).</p> <p>ES Volume III Appendix 9-4 Framework Drainage Strategy [EN010152/APP/6.3] confirms the approach to the management of drainage within the Site in accordance with part E and F. The Drainage Strategy is to be secured by a requirement of the DCO and is to be substantially in accordance with the Framework Drainage Strategy [EN010152/APP/6.3].</p> <p>ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] presents an assessment of the likely significant effects on the water environment. Embedded mitigation measures set out in Section 9.8 of ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1] result in no significant adverse effects.</p> <p>ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2] has been prepared in accordance with the policy requirements of the NPPF and includes details of the Sequential (Annex B Sequential Test Report) and Exception Tests in accordance with part A.</p>

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of the settlement hierarchy (as defined in Policy 1): will be required to pass a sequential test with an area of search normally confined to elsewhere within the same settlement.

Office: will be required to pass a sequential test with an area of search normally confined to elsewhere within the Town Centre where the development is being proposed.

Retail: will be required to pass a sequential test with an area of search normally confined to:

1. elsewhere within the settlement's town/ district/ local centre; or
2. where a settlement does not have a retail area defined on the Policies Map, elsewhere within the same settlement as per the proposal itself.

Mixed use: will need to provide justification that the scheme should be considered as a single proposal or otherwise consider whether it is more appropriate to separate out the individual component proposals of the scheme and assess against the land uses as above.

All other proposals: will normally require a borough-wide area of search unless a case can be made to narrow the search area due to certain locational needs of the development or specific catchment requirements.

In accordance with part B hydraulic modelling has been undertaken to inform the FRA (**ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2]**). The Environment Agency and LLFAs provided hydraulic modelling data which was used in the hydraulic modelling undertaken. The methodology of the hydraulic modelling undertaken as part of the FRA was agreed with the Environment Agency. The hydraulic modelling report (Annex A of **ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2]**) and model data was sent to the Environment Agency for review and approval in advance of submission of the DCO Application and their comments and approval are pending.

The Applicant's approach to site selection is detailed in **ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1]**. Further, **Annex B Sequential Test Report to ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2]** **ES Volume III Appendix 9-3 Flood Risk Assessment [EN010152/APP/6.2]** sets out how the Applicant has applied a sequential approach to the identification of the Site. Both set out that a

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D) The Council's Strategic Flood Risk Assessment identifies a number of residual flood risk areas and details development planning advice for these which should be considered when looking to develop in these areas. The Council will ensure it keeps its evidence base on flood risk up-to date, including commissioning a Level 2 Strategic Flood Risk Assessment at the earliest opportunity, so that proposals outside of Development Allocations have the best available evidence on which to prepare their own site specific flood risk assessments and appropriate mitigation and to assist with successful pass of the sequential and exceptions tests.

borough-wide area of search has been undertaken in accordance with part C.

Policy 58: Low Carbon and Renewable Energy (Strategic Policy)

The Council aims to increase the supply of low carbon and renewable energy generated in the Borough, in accordance with the principles set out below:

- A) Proposals will be supported which give priority to:
1. community energy schemes that are in full or part community ownership;
 2. biomass and energy crop schemes especially to the north and south east of the main urban area, for example mixed woodland, single species short rotation forestry and largescale forestry, outside of areas of high quality arable farmland;
 3. heat or power generation from light, water, waste and other low carbon heat sources;
 4. landfill and sewage gas energy generation schemes;

The Scheme will comprise the construction, operation and decommissioning of an onshore solar PV generating station in England exceeding 50 megawatts. Therefore it is one of the types of low carbon and renewable energy developments that is supported in Policy 58 Part A (3).

In respect of Part B (1), the **Consultation Report [EN010152/APP/5.1]** and the **Consultation Report Appendices [EN010152/APP/5.2]** submitted with the DCO application sets out the Applicant's approach to stakeholder engagement, provides an overview

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5. wind power projects which meet the criteria of Policy 59; and

6. micro-renewable energy technologies and decentralised heat and power systems within new development.

B) In all cases, low carbon and renewable energy proposals will be supported where they:

1. have undertaken community engagement and demonstrate how they will deliver environmental, social and economic benefits;
2. have no unacceptable adverse effects on local amenity and air quality, and include appropriate stand-off distances between technologies and sensitive receptors, such as residential areas;
3. allow the continued safe and efficient operation of Doncaster Sheffield Airport;
4. would have no unacceptable adverse effects on highway safety and infrastructure;
5. have no unacceptable adverse impacts, including cumulative impacts, on the built and natural environment (including landscape character, and historic and nature conservation assets, such as Thorne and Hatfield Moors); and
6. reclaim the site to a suitable and safe condition and use (such as agriculture or nature conservation) within a defined and agreed period should the development cease to be operational.

of the consultation activities undertaken and what due regard has been given to feedback.

In respect of part B (2), **ES Volume I Chapter 14.2: Air Quality [EN010152/APP/6.1]** concludes that there are no anticipated significant effects on air quality as a result of the Scheme.

In respect of part B (2 and 5), **ES Volume I Chapter 10: Landscape and Visual Amenity [EN010152/APP/6.1]** reports significant adverse effects at Year 1 of operations on users of PRoW and local residential properties (although the majority of residents in Fenwick and Moss would not experience significant adverse effect). By Year 15, planting will be sufficiently mature to mitigate the significant effects, with the exception of users of local PRoW and the residential property of Jett Hall Farm where visibility of the Solar PV Site would remain at an oblique angle from upper storey windows during winter. Significant adverse effects are reported on a number of landscape receptors as a result of construction and decommissioning. The assessment also concludes that there would be significant adverse effects at year 1 of operation on five landscaper characters although this significance would reduce to one landscape

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C) Proposals will be supported which facilitate the delivery of combined heat and power (CHP), combined cooling, heat and power (CCHP) and district heating networks where there is sufficient heat density/demand or anchor loads. Development within or adjacent to Heat Opportunity Areas will be expected to incorporate infrastructure for district heating where feasible, and to connect to existing systems where available.

character (LLCA 02 – Fenwick Farmlands) at year 15.

An extensive range of mitigation and enhancement measures are proposed as part of the Scheme which reduce the landscape and effects of the Scheme as far as practicable, but some significant adverse residual effects on landscape character and visual receptors would remain by Year 15. However, NPS EN-1 at paragraph 5.10.5 (Ref. 2) acknowledges that *“virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape.”* Paragraph 5.10.12 of NPS EN-1 (Ref. 2) also confirms that *“locally valued landscapes should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.”* In addition, the significant operational effects are localised and would be reversed following 40 years of operation through decommissioning.

It is considered that the substantial benefits and need for the Scheme as set out in Section 5 of this Planning Statement, including the delivery of critical national priority infrastructure to contribute towards meeting national energy objectives outweigh the localised residual landscape effects, and whilst they may be long

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term, the residual local landscape effects will also be temporary.

In respect of B (3), **ES Volume III Appendix 14-2: Glint and Glare Assessment [EN/010152/APP/6.3]** concludes that the overall impacts on aviation assets are acceptable and not significant.

In respect of B (4), **ES Volume I Chapter 13: Transport and Traffic [EN010152/APP/6.1]** concludes that, following the implementation of mitigation measures, impacts during construction of the Scheme is anticipated to result in potentially significant adverse residual effects at road links 9 (Moss Road – Askern Village), 10 (Moss Road – East of Askern), 11 (Fenwick Common Lane), 12 (Trumfleet Lane – South of Moss), 13 (Marsh Road) and 14 (Thorpe Bank). However, the routes currently experience low baseline traffic numbers which is the reason for the higher percentage increase in traffic and, therefore, the overall impact is not deemed significant. In addition, any effects associated with the increase in traffic is temporary in nature and not due to a lack of capacity on the road network. During operation, traffic generation will be negligible.

In respect of B (5), in addition to the significant transport and landscape and visual effects

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 60: Protecting and Enhancing Doncaster's Soil and Water Resources	Proposals affecting land and water resources will be expected to comply with the following criteria: A) Proposals on non-allocated sites that involve the significant loss of the best and most versatile agricultural land (grades 1, 2 and 3a) will only be supported where:	<p>summarised above, significant effects are reported on designated heritage assets. However, as explained against Policies 34 and 36 above, the substantial public benefits and need for the Scheme, as set out in Section 5 of this Planning Statement including the delivery of critical national priority infrastructure to contribute towards meeting national energy security objectives and carbon reduction commitments, clearly and demonstrably outweigh the less than substantial harm to designated heritage assets.</p> <p>In respect of B (6), Framework DEMP [EN010152/APP/7.9] is submitted as part of the DCO Application, with a detailed DEMP being secured as requirements in Schedule 2 of the draft DCO [EN010152/APP/3.1]. The DEMP will ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.</p> <p>Agricultural land quality was a key consideration in the Applicant's site selection process. In respect of point A (1), as set out in ES Volume I Chapter 3: Alternatives and Design Evolution [EN010152/APP/6.1], the Applicant considered locations that would avoid best and most versatile (BMV) agricultural land. To identify these locations the Applicant used</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>1. there are no other suitable alternative locations on lower quality agricultural land (or non-agricultural land) available; or</p> <p>2. the land can be reinstated back to its previous state (where possible).</p> <p>B) Developers will need to demonstrate through an on-site assessment the actual grading where significant development takes place on agricultural land.</p> <p>C) Proposals will need to demonstrate that all practicable steps have been taken for soil resources to be conserved and managed in a sustainable way.</p> <p>D) Development which would disturb or damage any soils of high environmental value (e.g. peats and other soils contributing to ecological connectivity, carbon stores such as peatlands and flood risk alleviation etc.) will not normally be permitted.</p> <p>E) Proposals will be supported which will:</p> <ol style="list-style-type: none">1. make positive progress towards achieving 'good' status or potential under the Water Framework Directive in the Borough's surface and ground waterbodies; and2. promote water efficiency measures which take account of current water availability (e.g. informed by Catchment Abstraction Management Strategies) and future demand.	<p>provisional Agricultural Land Classification (ALC) mapping published by Natural England (Ref. 48). This is identified on ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2] and ES Volume II Figure 3-3: Exclusion of Best and Most Versatile agricultural land [EN010152/APP/6.2] and allowed the identification of areas of land that comprised of non-BMV land (Grade 4, Grade 5 and non-agricultural land) within City of Doncaster Council's administrative area. Grade 1, 2 and 3 BMV land and urban areas identified on ES Volume II Figure 3-2: Agricultural Land Classification [EN010152/APP/6.2] were avoided. Previously developed land was also considered. These land types were identified by checking the local authority brownfield register. No suitable or available areas of brownfield or non-agricultural land were identified.</p> <p>In respect of point B, ES Volume III Appendix 12-3: Agricultural Land Classification Survey Report [EN010152/APP/6.3] confirms that 7% of the Solar PV Site would be classified as BMV land in areas to be occupied by Solar PV panels, Ecology Mitigation Area (including part of the Heritage Buffer Area) and the BESS. In respect of points A (2), C and D, all these areas can be restored to agricultural use by the landowner at decommissioning, with all</p>

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- F) Proposals will not be supported which would:
1. have an adverse impact on the ecological status or recreational value of rivers and other water bodies such as flood storage areas;
 2. lead to the deterioration in the quality of surface and ground waters; and
 3. lead to a reduction in ground water levels (or reduced flows in water courses).

structures removed and stored topsoil returned. In addition, disturbance to agricultural land within the Grid Connection Corridor will be short term as the land would be reinstated following construction. A **Framework DEMP [EN010152/APP/7.9]** is submitted as part of the DCO Application, with a detailed DEMP being secured as requirements in Schedule 2 of the **draft DCO [EN010152/APP/3.1]**. The DEMP will ensure that appropriate environmental management practices are followed during the decommissioning phase of a project.

In respect of points E and F, **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** presents an assessment of the likely significant effects on the water environment. Embedded mitigation measures set out in Section 9.8 of **ES Volume I Chapter 9: Water Environment [EN010152/APP/6.1]** result in no significant adverse effects on the pollution of surface water and groundwater features.

ES Volume III Appendix 9-2: WFD Assessment [EN010152/APP/6.3] concludes that there would be no deterioration in the status of any WFD waterbody classification and no prevention of future improvement in status, given the mitigation built into the Scheme.

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy 61: Providing for and Safeguarding Mineral Resources (Strategic Policy)	<p>The extraction and production of aggregate, industrial, building stone and energy minerals that contribute to infrastructure and construction projects will be supported through the following principles:</p> <p>A) The Council will aim to plan for a steady, adequate, efficiently and sustainably sourced minerals during the plan period by:</p> <ol style="list-style-type: none">1. encouraging the use of suitable secondary and recycled material in the first instance, minimising the need for primary extraction;2. providing for sufficient industrial and energy minerals that balance both the economic and environmental benefits;3. contributing toward local provision by maintaining, where possible, a landbank of permitted reserves for at least seven years for sand and gravel and, with Rotherham Council, at least ten years for aggregate limestone;	<p>A Water Management Plan (WMP) (which will be produced post consent) will include details for water quality monitoring and pollution prevention and control. The WMP will be a management plan that is brought forward as part of the detailed CEMP to be secured by a requirement of the DCO and to be substantially in accordance with the Framework CEMP [EN010152/APP/7.7].</p> <p>The majority of the Site is not located within a Minerals Safeguarding Area (MSA) or associated 250 m buffer. The proposed Grid Connection Corridor is approximately 5.6 km in length, of which approximately 1.47 km is located within the MSA and a further 1.1 km within the MSA buffer.</p> <p>A Minerals Safeguarding Report (ES Volume III Appendix 12-2: Minerals Safeguarding Report [EN/010152/APP/6.3]) has been prepared in support of the DCO application. The report presents an assessment of the Scheme (specifically, the Grid Connection Corridor) in the context of the five criteria of Policy 61 (Part B), noting that accordance with only one of the criteria needs to be demonstrated by the Applicant for non-mineral development within the MSA and 250 m buffer zone to be</p>

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
	<p>4. monitoring and reviewing the permitted reserves of sand and gravel, and aggregate limestone and producing an annual aggregate assessment;</p> <p>5. requiring proposals for sand and gravel to demonstrate that the mineral resource includes at least 20% sharp sand and gravel;</p> <p>6. identifying on the Policies Map existing mineral sites with extant permission (see Table 16 below), new mineral proposals (preferred areas (see Table 17 below)) and 'Areas of Search' (see Table 18 below) (see also Policy 62);</p> <p>7. identifying on the Policies Map Minerals Safeguarding Areas; 8. identifying on the Policies Map and safeguarding minerals transportation, handling and processing infrastructure from non-minerals development during and beyond the plan period which may adversely impact on the operation of the site in accordance with NPPF paragraph 182 (Table 19).</p> <p>B) Proposals for non-mineral development within Mineral Safeguarding Areas (see Table 21), and the 250m buffer zone, will be supported where it can be demonstrated that:</p> <p>1. consideration has been given to the long term economic value of the mineral; or</p> <p>2. non-mineral development can take place without preventing the economically viable mineral resource from being extracted in the future; or</p>	<p>supported. The report explains that the Scheme accords with criteria 2, 4 and 5 of Policy 61 (Part B).</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

-
3. the proposal can feasibly incorporate the prior extraction of any minerals of economic value in an environmentally acceptable way; or
 4. the need for the development outweighs the need to safeguard the area for future minerals extraction; or
 5. the development is permitted, minor or temporary in nature (see safeguarding exemptions in Table 20).

C) Development proposals within the sand and gravel Safeguarding Area and Airport Policy Area which comply with Policy 6 (Doncaster Sheffield Airport and Business Park), are exempt from Part B of this Policy for the duration of the Local Plan.

Table 0-2: Barnsley, Doncaster and Rotherham Joint Waste Plan (2012)

Relevant Paragraph/Policy Reference	Policy Requirement	Compliance with Policy
Policy WCS7: Managing Waste in All Developments	<p>A. All development proposals (excluding minor planning applications) must submit a waste management plan as part of the planning application. In particular, such plans will need to include:</p> <ol style="list-style-type: none"> 1) information on the amount and type of waste that will be generated from the site 2) measures to reduce, reuse and recycle waste within the development, including the provision of on-site separation and treatment facilities (using fixed or mobile plants where appropriate); 3) an assessment of the potential to reuse or adapt existing buildings on the site (if demolished it must explain why it is not possible to retain them); 4) design and layouts that allow effective sorting and storing of recyclables and recycling and composting of waste and facilitate waste collection operations during the lifetime of the development; 5) measures to minimise the use of raw materials and minimise pollution of any waste; 6) details on how residual waste will be disposed in an environmentally responsible manner and transported during the construction process and beyond; 7) construction and design measures that minimise the use of raw materials and encourage the reuse of recycled or secondary resources (particularly building materials) and also ensure maximum waste recovery once the development is completed; and 	<p>ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1] has been prepared to assess the likely significant effects from materials and waste, and as a result from the proposed Scheme. It also identifies and proposes measures to address the potential impacts of the Scheme on materials and waste. Such embedded mitigation measures will be secured through the Framework CEMP [EN010152/APP/7.7], Framework OEMP [EN010152/APP/7.8], and Framework DEMP [EN010152/APP/7.9].</p> <p>Section 14.7 of ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1] summarises the likely effects of the proposed Scheme on the amount of waste generated from the Site.</p> <p>Section 14.6 of ES Volume I Chapter 14.8 Materials and Waste [EN0101542/APP/6.1] sets out measures embedded into the design and layout of the Scheme to reduce the impact on waste. During the construction phase, the Scheme will follow DEFRA’s Waste Hierarchy guidance, which aims to prioritise waste prevention, followed by preparing for reuse, recycling, other recovery and as a last resort, disposal.</p>

Relevant Paragraph/Policy Reference

Policy Requirement

Compliance with Policy

8) details on how the development will be monitored following its completion.

B. Where waste management plans include on-site recycling, recovery and re-processing provision they must demonstrate how these activities will comply with the requirements set out under policy WCS6.

C. Proposals for non-waste development must not prevent or prejudice the delivery and operation of waste management facilities within the vicinity of the safeguarded and allocated sites set out under policies WCS2, WCS3 and WCS5.

A Framework CEMP [EN010152/APP/7.7] and Framework SWMP [EN010152/APP/7.18] are include alongside the ES which set out:

- The waste streams that will be generated;
- How the waste hierarchy will be applied to these wastes;
- Good practice measures for managing waste; and
- Roles and responsibilities for waste management.

With the incorporation of mitigation measures, no waste significant effects have been identified in relation to the proposed Scheme.

Appendix C Heritage Statement

FENWICK SOLAR FARM

**Fenwick Solar Farm
EN010152**

**Planning Statement
Appendix C: Heritage Statement**
Document Reference: EN010152/APP/7.1

Regulation 5(2)(q)
Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009

October 2024
Revision Number: 00

Revision History

Revision Number	Date	Details
00	October 2024	DCO application

Prepared for:
Fenwick Solar Project Limited

Prepared by:
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1. Introduction

- 1.1.1 Fenwick Solar Project Limited (the Applicant) has commissioned this Heritage Statement as part of the Planning Statement in support of its application for a Development Consent Order (DCO Application) for a new solar farm with energy storage facilities at Fenwick (hereafter referred to as 'the Scheme').
- 1.1.2 The Scheme would comprise the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) electricity generating facility and associated development. The associated development proposed includes, but is not limited to, a Battery Energy Storage System (BESS); on-site substation; underground cabling to provide export and import connection to the National Electricity Transmission System (NETS); and areas of landscaping and biodiversity enhancements. The Scheme is located entirely within the City of Doncaster Council's administrative area.
- 1.1.3 The connection to the NETS will be either via underground cabling along a corridor running for approximately 6.3 kilometres (km) from the Solar PV Site to the Existing National Grid Thorpe Marsh Substation; or via underground cabling between the On-Site Substation and existing overhead power lines within the Solar PV Site, which connect to the Existing National Grid Thorpe Marsh Substation.
- 1.1.4 The Scheme is defined as a Nationally Significant Infrastructure Project and will require a DCO from the Secretary of State for Energy Security and Net Zero (the 'Secretary of State'), due to its generating capacity exceeding 50 Megawatts.
- 1.1.5 A full description of the Scheme is included in Chapter 2: Scheme Description of the Environmental Statement (ES) **[EN010152/APP/6.1]**. An overview of the Scheme and its environmental impacts is provided in the Environmental Statement Non-Technical Summary **[EN010152/APP/6.4]**.
- 1.1.6 Legislation and national planning policy, considered relevant to the determination of the DCO Application, identifies the need to present an assessment of harm to designated heritage assets affected by the Scheme and consider this in the decision as to whether to grant a DCO. The purpose of this Heritage Statement is to set out the assessment of harm that the Scheme may have upon designated heritage assets, and those assets considered to be demonstrably of national significance. This is then used in the planning balance relating to the heritage national planning policy tests in the Planning Statement submitted alongside the DCO Application **[EN010152/APP/7.1]**. This Heritage Statement therefore includes the following:
- a. The legislative and planning policy framework context for the assessment.
 - b. A summary of the results of the Environmental Impact Assessment (EIA) undertaken, which is presented in the ES **[EN010152/APP/6.1]**, to establish those assets affected by the Scheme with resultant harm to their significance; and for those assets where there is the potential for

that harm to be substantial, an assessment is provided to explain the potential scale of the harm.

- c. A conclusion as to whether substantial harm is caused.
- d. Table 1 presents the level of harm for each designated heritage asset affected by the Scheme.

1.1.7 The EIA relating to Cultural Heritage is presented in Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1]. This Heritage Statement draws upon the information presented in the ES.

2. Legislation, planning policy and guidance

2.1 The Infrastructure Planning (Decisions) Regulations 2010 (as amended)

- 2.1.1 The Infrastructure Planning (Decisions) Regulations 2010 (as amended) (Ref. 1) apply to the determination of DCO applications under the Planning Act 2008. Regulation 3 requires the Secretary of State to have regard to the following when deciding an application which affects a listed building, conservation area or scheduled monument, or its setting:
- a. For an application which affects a listed building or its setting, the Secretary of State 'must have regard to the desirability of preserving the listed building or its setting or any features of special architectural or historic interest which it possesses'.
 - b. For an application relating to a conservation area, the Secretary of State 'must have regard to the desirability of preserving or enhancing the character or appearance of that area'.
 - c. For an application for development consent which affects or is likely to affect a scheduled monument or its setting, the Secretary of State 'must have regard to the desirability of preserving the scheduled monument or its setting'.

2.2 Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983 and 2002)

- 2.2.1 The Ancient Monuments and Archaeological Areas Act 1979 (amended by the National Heritage Act 1983 and 2002) affords protection to any asset identified on the schedule of nationally important archaeological sites, known as Scheduled Monuments. Pursuant to section 33 of the Planning Act 2008, the notice and consent requirements under the 1979 Act do not apply to DCO development proposals.

2.3 Listed Building and Conservation Areas Act

- 2.3.1 The Planning (Listed Buildings and Conservation Areas) Act 1990 (excluding normal planning procedures, which are disapplied by the DCO, which if granted, would encompass all of the normal consents) requires the Secretary of State to hold a list of buildings of special architectural or historical interest, which are accorded statutory protection. In addition, it expects local planning authorities to designate conservations which are parts of their area considered to be "*areas of special architectural or historic interest, the character or appearance of which is desirable to preserve or enhance and design*".

2.4 Overarching National Policy Statement for Energy (EN-1)

- 2.4.1 The overarching National Policy Statement (NPS) for Energy (EN-1) (Ref. 2) was published in November 2023 and came into force in January 2024. The NPS sets out national planning policy for the consideration of energy

- infrastructure, which includes setting out how the Secretary of State will have expected applicants to have assessed their schemes and how the Secretary of State will consider environmental effects in decision making.
- 2.4.2 Part 5 of the statement sets out guidance on generic impacts for the Applicant's assessment and decision-making on the DCO Application. These impacts concern, amongst other matters, the historic environment. The document sets out a phased progression to the heritage assessment, emphasising the need to understand the significance of a heritage asset and the contribution of its setting to that significance (paragraph 5.9.3), before assessing the extent to which that significance is impacted.
- 2.4.3 When assessing impact, NPS EN-1 paragraph 5.9.10 identifies that the Applicant, 'should provide a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance'.
- 2.4.4 With regard to decision making, when assessing the impact of a proposed development on the significance of a designated heritage asset, paragraph 5.9.27 identifies that the Secretary of State should '*give great weight to the asset's conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance*'.
- 2.4.5 Paragraph 5.9.28 notes that the Secretary of State should give '*considerable importance and weight to the desirability of preserving all heritage assets*', and that '*any harm or loss of significance of a designated heritage asset (from its alteration or destruction, or from development within its setting) should require clear and convincing justification*'. While the emphasis is on designated assets, paragraph 5.9.6 makes it clear that '*non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to Scheduled Monuments or Protected Wreck Sites should be considered subject to the policies for designated heritage assets*¹'.
- 2.4.6 Paragraph 5.9.29 is clear that '*substantial harm to or loss of significance of a grade II Listed Building or a grade II Registered Park or Garden should be exceptional*'. While paragraph 5.9.30 extends this further stating that '*substantial harm to or loss of significance of assets of the highest significance, including Scheduled Monuments; Protected Wreck Sites; Registered Battlefields; grade I and II* Listed Buildings; grade I and II* Registered Parks and Gardens; and World Heritage Sites, should be wholly exceptional*'.
- 2.4.7 In the event that a proposed development would result in substantial harm, or the total loss of a designated heritage asset's significance, paragraph 5.9.31 asserts that '*the Secretary of State should refuse consent unless it can be demonstrated that the substantial harm to, or loss of, significance is necessary to achieve substantial public benefits that outweigh that harm or loss*'. Paragraph 5.9.31 then provides four alternative criteria which must be met to enable consent of the proposed development causing substantial harm or loss of significance.

¹ Paragraph 5.9.5 defines what constitutes a non-designated asset of equivalent significance, including 'those that have yet to be formally assessed by the Secretary of State, but which have potential to demonstrate equivalent significance to Scheduled Monuments or Protected Wreck Sites'.

- 2.4.8 Where less than substantial harm to the significance of a designated heritage asset would result from a proposed development paragraph 5.9.32 states that the '*harm should be weighed against the public benefits of the proposal, including, where appropriate securing its optimum viable use*'.
- 2.4.9 With respect to weighing applications that directly or indirectly affect non-designated heritage assets paragraph 5.9.33 identifies that '*a balanced judgement will be required having regard to the scale of any harm or loss and the significance*'.

2.5 National Planning Policy Framework

- 2.5.1 The National Planning Policy Framework (NPPF) (Ref. 3) was originally published in 2012 and most recently updated in December 2023. This document is supported by the Planning Practice Guidance which provides more detail regarding the assessment of harm to designated heritage assets. In the case of nationally significant energy projects, the overarching NPS for Energy (NPS EN-1) (Ref. 2) applies the same tests as the NPPF.

2.6 Planning Practice Guidance

- 2.6.1 Further clarity on the interpretation of harm is provided within the Planning Practice Guidance (Ref. 4). Although relating to the policy outlined within the NPPF, it is transferable to the policy contained within NPS-EN1 as both require the same assessment with regard to the historic environment and apply the same planning tests.
- 2.6.2 The Planning Practice Guidance expands on terms such as 'significance' and its importance in decision making. Paragraph 018 states 'What matters in assessing whether a proposal might cause harm is the impact on the significance of the heritage asset. As the National Planning Policy Framework makes clear, significance derives not only from a heritage asset's physical presence, but also from its setting. Proposed development affecting a heritage asset may have no impact on its significance or may enhance its significance and therefore cause no harm to the heritage asset. Where potential harm to designated heritage assets is identified, it needs to be categorised as either less than substantial harm or substantial harm (which includes total loss) in order to identify which policies in the NPPF (paragraphs 200-202) apply. Within each category of harm (which category applies should be explicitly identified), the extent of the harm may vary and should be clearly articulated'.
- 2.6.3 Paragraph 018 emphasises that substantial harm is a high test, and it is important to consider whether an adverse impact '*seriously affects a key element*' of an asset's significance. It is the degree of harm to the asset's significance rather than the scale of the development that is to be assessed (paragraph 018).
- 2.6.4 The Planning Practice Guidance states that in relation to setting, a thorough assessment of the impact on setting needs to take in to account, and be proportionate to, the significance of the heritage asset under consideration and the degree to which proposed changes enhance or detract from that significance and the ability to appreciate it (paragraph 009).
- 2.6.5 The NPPF indicates that the degree of harm should be considered alongside any public benefits that can be delivered by development. The Planning

Practice Guidance states that these benefits should flow from the Scheme and should be of a nature and scale to be of benefit to the public and not just a private benefit and would include securing the optimum viable use of an asset in support of its long-term conservation (paragraph 020).

2.7 Historic England guidance

- 2.7.1 Managing Significance in Decision Taking in the Historic Environment: Historic Environment Good Practice Advice Note 2 (GPA2, 2015; Ref. 5) contains Historic England's guidance on implementing historic environment policy contained within the NPPF and Planning Practice Guidance. GPA2 emphasises the importance of having a knowledge and understanding of the significance of heritage assets likely to be affected by the development and that the *'first step for all applicants is to understand the significance of any affected heritage asset and, if relevant, the contribution of its setting to its significance'* (paragraph 4). With regard to harm, the document clarifies that change to heritage assets is inevitable, but that the change is only harmful when significance is damaged and that *'[t]he nature and importance of the significance that is affected will dictate the proportionate response to assessing that change'* (paragraph 29). The document reiterates that substantial harm is a high test (paragraph 27).

3. Methodology

- 3.1.1 All heritage assets which have been identified as experiencing an adverse effect in the EIA have been considered within this statement and are identified in Annex A. This effect can be experienced as a direct physical impact or an effect as a result of changes to an asset's setting. Effects can be experienced during the construction of the Scheme as short-term or long-term impacts, or as a result of the operation and maintenance, or decommissioning phases of the Scheme.
- 3.1.2 While there is no direct correlation between the significance of effect in EIA terms and the degree of harm referenced in national planning policy, it is acknowledged that those assets which are identified as experiencing a significant adverse effect are more likely to experience substantial harm. This note, therefore, provides further assessment of those heritage assets where significant adverse effects have been identified in order to understand where on the harm spectrum this impact falls. The emphasis is placed on the level of impact for the purposes of this Heritage Statement. This is consistent with the NPS EN-1 and the NPPF. 'Effect' is a purely EIA term which balances the impact of a development with the heritage significance of an asset. Harm is associated with the impact on the asset and is not influenced by an asset's heritage value.
- 3.1.3 For the majority of assets, the effect presented in the ES has been assessed as being not significant (negligible to minor adverse effects) due to the scale of the impact. As such, it is concluded that the harm caused to these assets falls within the less than substantial category and at the lower level of the spectrum, or that no harm is caused. In accordance with planning guidance and Historic England advice, a proportionate approach has been taken and these assets are not discussed further. However, they are included in the summary in Annex A. The reader is directed to Chapter 7: Cultural Heritage of the ES [EN010152/APP/6.1] for a full consideration of the impacts to these assets and **Error! Reference source not found.** of this Statement for the categorisation of harm.

4. Assessment of harm

- 4.1.1 As reported within Chapter 7: Cultural Heritage of the ES **[EN010152/APP/6.1]**, three designated heritage assets have been identified as experiencing a significant adverse effect:
- a. Thorpe in Balne moated site, chapel and fishpond;
 - b. Fenwick Hall moated site; and,
 - c. Riddings Farm (Lily Hall).
- 4.1.2 Despite several non-designated heritage assets being affected by the Scheme (some to a significant extent), none of them are of a schedulable quality and, therefore, not subject of the harm tests set out in NPS EN-1. Accordingly, they are not discussed within this Statement.

4.2 Thorpe in Balne moated site, chapel and fishpond

- 4.2.1 A significant adverse effect has been identified on the Scheduled Monument Thorpe in Balne moated site, chapel and fishpond [NHLE 1012111], including Grade II* listed remains of the chapel [NHLE 1286641] as a result of construction activities within the Grid Connection Corridor. This asset is considered to be of high value. The Thorpe in Balne moated site, chapel and fishpond [NHLE 1012111] Scheduled Monument is located approximately 3.4 km south of the Solar PV Site.
- 4.2.2 The construction activities within the Grid Connection Corridor may include but are not limited to construction traffic, construction machinery and a temporary compound. The construction activities may slightly affect the ability to understand and appreciate the heritage interests of the asset, which may result in a slight impact upon its overall value. However, this impact would only last for the duration of the construction of the Grid Connection Corridor, after which the Grid Connection Corridor will be entirely below ground and the temporary compound removed, and the impact would therefore be short-medium term and temporary.
- 4.2.3 The magnitude of impact through temporary change to the setting of the asset is assessed as low and, given the temporary nature of the impact, the harm is considered to be less than substantial.

4.3 Fenwick Hall moated site

- 4.3.1 A significant adverse effect has been identified on the Scheduled Monument Fenwick Hall moated site [NHLE 1012459] as a result of the introduction of the physical form and appearance of the Scheme at construction, and the continued effect on the setting of this asset through the operational and maintenance phase. This asset is considered to be of high value. The Fenwick Hall moated site [NHLE 1012459] Scheduled Monument is located approximately 86 m west of the Solar PV Site in an area that has been omitted from the Scheme but which the Solar PV Site completely surrounds.
- 4.3.2 Embedded mitigation measures have been incorporated into the Scheme design in the form of a heritage buffer area and the enhancement / retention of existing hedgerows associated with this asset.

- 4.3.3 The effect is considered to be reversible upon decommissioning of the Scheme, and as such no additional mitigation is proposed.
- 4.3.4 The magnitude of impact through long-term (for the lifespan of the Scheme) but reversible change to the setting of the asset is assessed as low, and, given that the impact is reversible upon decommissioning, the harm is considered to be less than substantial.

4.4 Riddings Farm (Lily Hall)

- 4.4.1 Chapter 15: Cumulative Effects and Interactions of the ES **[EN010152/APP/6.1]** also identifies a project (represented by two application numbers due to the joint requirement for listed building consent (22/01537/LBC) and planning permission (22/01536/FUL)) which is considered to result in a cumulative effect.
- 4.4.2 The project referred to comprises the demolition of 'Lily Hall' [NHLE 1151609], a Grade II listed farmhouse located at Riddings Farm, to the east of Fenwick and to the west of Fenwick Hall. The farmhouse, currently in a ruinous state of repair, lies in context with its surrounding, listed, contemporary farm buildings [NHLE 1151610 and 1151611], all of which sit within a wider agricultural landscape, separated by fields from the core of Fenwick village. Lily Hall [NHLE 1151609] is located approximately 185 m east of the Solar PV Site in an area that has been omitted from the Scheme but which the Solar PV Site completely surrounds.
- 4.4.3 The demolition of the listed farmhouse [NHLE 1151609] is considered to result in a loss of association, group value, and context for the remaining listed contemporary farm buildings [NHLE 1151610 and NHLE 1151611]. Once the farmhouse is removed there will be no effect on this asset from the construction of the Scheme and therefore, there will be no cumulative effect on this asset.
- 4.4.4 On the remaining, contemporary farm buildings [NHLE 1151610 and NHLE 1151611], there will be a reduction in the ability to understand the historic and functional setting of these assets resulting from both schemes in combination. This would give rise to a moderate adverse cumulative effect which is significant.
- 4.4.5 The resulting cumulative impact is considered to have a medium magnitude of impact on the listed, contemporary farm buildings [1151610 and 1151611].
- 4.4.6 It is noted that the greater impact in this case arises from the loss of the demolition of Lily Hall farmhouse (consented by 22/01536/FUL and 22/01537/LBC) and the resultant loss of association, group value, and context for the remaining listed, contemporary farm buildings [NHLE 1151610 and NHLE 1151611]. The Scheme makes a lesser, non-significant, contribution to the identified cumulative impact.
- 4.4.7 Therefore, the harm arising from this cumulative impact is considered to be less than substantial.

5. Conclusion

- 5.1.1 Both NPS EN-1 and the NPPF require an assessment of harm to heritage significance. Both NPS EN-1 and the NPPF further categorise that harm into 'substantial' and 'less than substantial'. The Planning Practice Guidance, which supports the heritage policies contained within NPS EN-1 and the NPPF, expects potential harm to designated heritage assets to be categorised as either less than substantial harm or substantial harm (which includes total loss). It goes on to state that within each category of harm identified, the extent of the harm should be clearly articulated.
- 5.1.2 Chapter 7: Cultural Heritage of the ES **[EN010152/APP/6.1]** has identified effects to designated and non-designated assets as a result of the Scheme. The majority of these are not significant and, in the case of the designated heritage assets affected, can be reasonably equated with less than substantial harm, at the lower end of the spectrum.
- 5.1.3 With reference to the Scheduled Monument of Thorpe in Balne moated site, chapel and fishpond [NHLE 1012111], including Grade II* listed remains of the chapel [NHLE 1286641], the magnitude of the impact is low and the impact is temporary for the construction phase of the Grid Connection Corridor only, therefore this is considered to be less than substantial harm to the designated heritage asset.
- 5.1.4 Similarly, the magnitude of the impact to the Scheduled Monument of Fenwick Hall moated site [NHLE 1012459] is low, and despite the long-term (for the lifespan of the Scheme) nature of the impact, it is reversible upon decommissioning, therefore this is considered to be less than substantial harm to the designated heritage asset.
- 5.1.5 In terms of designated heritage asset Lily Hall farmhouse, its demolition has been consented and works to demolish the listed farmhouse [NHLE 1151609] are anticipated to be completed prior to the construction of the Scheme. The Scheme makes a lesser, non-significant, contribution to the identified cumulative impact which is considered to be less than substantial harm to the designated heritage asset.
- 5.1.6 Several non-designated heritage assets were identified within the Order Limits and defined study areas and will be affected by the Scheme to varying degrees. However, none of the identified non-designated heritage assets are of schedulable quality and therefore, are not subject to the harm tests as set out in NPS EN-1 paragraph 5.9.6. Accordingly, the non-designated heritage assets have not been discussed in this Heritage Statement.
- 5.1.7 To conclude, the Scheme will result in less than substantial harm to the identified designated heritage assets in Annex A and whilst some non-designated heritage assets will be impacted by the Scheme, none are of schedulable quality and therefore, are not subject to the harm tests set out in the relevant planning policy and guidance.

6. References

- Ref. 1 HMSO (2010) Infrastructure Planning (Decisions) Regulations 2010.
- Ref. 2 Department for Energy Security and Net Zero (2024) National Policy Statement for Energy (EN-1).
- Ref. 3 Ministry of Housing, Communities and Local Government (MHCLG) (2023) National Planning Policy Framework.
- Ref. 4 Ministry of Housing, Communities and Local Government (2024) Planning Practice Guidance.
- Ref. 5 Historic England (2015) Historic Environment Good Practice Advice in Planning Note 2. Managing Significance in Decision Taking in the Historic Environment.

Annex A Effects as reported in the Environmental Statement and Harm Category Assessment Summary

Table 1 Effects as reported in the Environmental Statement and Harm Category

Designation	Description	Description of impact	Additional mitigation / enhancement measures	Residual EIA effect after mitigation	Harm category
Designated Asset - Scheduled monument	The Moat Hill moated site [NHLE 1011920]	Long-term (for the lifespan of the Scheme (reversible)) changes to the setting of the asset.	Embedded mitigation in the form of enhancement / retention of existing hedgerows.	Minor Adverse Not Significant	Less than substantial
Designated Assets - Scheduled monument and Listed Building Grade II*	Thorpe in Balne moated site, chapel and fishpond [1012111], including Grade II* listed remains of chapel [NHLE 1286641]	Short term, temporary, changes to the setting of the asset.	Embedded mitigation in the form of enhancement / retention of existing hedgerows.	Moderate Adverse Significant	Less than substantial (due to temporary nature of the impact)
Designated Asset - Scheduled monument	Parkshaw moated site [NHLE 1016025]	Long-term (for the lifespan of the Scheme (reversible)) changes to the setting of the asset.	Embedded mitigation in the form of enhancement / retention of existing hedgerows and additional planting.	Minor Adverse Not Significant	Less than substantial
Designated Asset - Scheduled monument	Fenwick Hall moated site [NHLE 1012459]	Long-term (for the lifespan of the Scheme (reversible)) changes to the setting of the asset.	Embedded mitigation in the form of heritage buffer area and enhancement / retention of existing hedgerows.	Moderate Adverse Significant	Less than substantial (due to reversible nature of the impact)
Designated Assets – three no. Listed Building Grade II	Fenwick Hall farmhouse [NHLE 1314800], attached outbuildings [NHLE 1151612] and shelter shed and attached loose box [NHLE 1151613]	Long-term (for the lifespan of the Scheme (reversible)) changes to the setting of the asset.	Embedded mitigation in the form of heritage buffer area and enhancement / retention of existing hedgerows.	Minor Adverse Not Significant	Less than substantial
Designated Assets – two no. Listed Building Grade II	Lily Hall [1151609], barn and granary [NHLE 1151610] and dovecote and attached outbuilding [NHLE 1151611]	Long-term (for the lifespan of the Scheme (reversible)) changes to the setting of the asset.	None currently identified.	Minor Adverse Not Significant	Less than substantial
Designated Assets – two no. Listed Building Grade II	Glebe Farmhouse [NHLE 1192743] and associated barn [NHLE 1314794]	Short-medium term, temporary, changes to the setting of the asset.	None currently identified.	Negligible Not Significant	Less than substantial

An aerial photograph of a vast solar farm at sunset. The rows of solar panels stretch across the landscape, creating a strong sense of perspective. The sky is a deep, dark orange, and the sun is low on the horizon, casting long, soft shadows across the panels.

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