One Earth Solar Farm

Volume 5.0: Reports and Statements [EN010159]

Planning Statement

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Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 – 5(2)(q)

Contents

1. Introduction

1.1 Background

1.1.1. This Planning Statement has been prepared on behalf of One Earth Solar Farm Ltd (the Applicant) in relation to an application for a Development Consent Order (DCO) (the DCO Application) to be made to the Secretary of State (SoS) for the Department for Energy Security and Net Zero, pursuant to the Planning Act 2008 (PA 2008) **[Ref 1]**.

1.1.2. The DCO Application is for a Nationally Significant Infrastructure Project (NSIP) comprising the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) array electricity generating facility. The project includes solar PV panels, Battery Energy Storage Systems (BESS), onsite substations and associated grid connection infrastructure which will allow for the generation and export of electricity to the proposed National Grid High Marnham Substation (hereafter 'the Proposed Development'). The Location Plan [EN010159/APP/2.1] shows the Order Limits for the Proposed Development, which is approximately 1,409 hectares (ha) of land within the administrative areas of both Lincolnshire and Nottinghamshire County Councils and the districts of Bassetlaw, Newark and Sherwood and West Lindsey (the 'Order Limits').

1.1.3. The Proposed Development includes infrastructure capable of generating more than 50 megawatts (MW) of renewable energy connecting to the National Electricity Transmission System (NETS) at the National Grid's High Marnham Substation. The Applicant has secured a connection agreement with National Grid which would allow the export and import of up to 740MW of electricity to the High Marnham Substation.

1.2 The Applicant

1.2.1 The Proposed Development is being promoted by One Earth Solar Farm Ltd. This is a joint venture between Padero Solaer Ltd (trading as PS Renewables) and Ørsted Onshore UK Ltd.

1.2.2 Established in 2012, PS Renewables is one of the UK's largest privately held companies that specialises in the development and asset management of renewable energy projects including solar and BESS. PS Renewables' existing solar farm portfolio totals over 300MW of electricity producing potential in the UK.

1.2.3 In the UK, Ørsted is a leading offshore wind developer; currently operating 12 offshore wind farms, alongside onshore wind farms in Scotland, and also owning and operating sites for energy storage. Ørsted is committed to ensuring that its presence contributes to sustainable growth and development, helping to support the UK in meeting its legally binding net zero targets and benefitting the communities in which it operates.

1.3 Legislative Context Review

1.3.1 Section 6 of this Planning Statement sets out the legislative context in further detail, including the relationship between the Planning Act 2008, relevant National Policy Statements ('NPSs') and the Proposed Development. Sections 6.3 and 6.4 set out the national policies against which the Proposed Development will be determined, alongside other national and local planning policy that may be important and relevant matters for the SoS's decision. Finally, Section 6.6 outlines other national policy documents which are considered to be important and relevant to the determination of the DCO application.

1.3.2 In overview, the Proposed Development is classed as an NSIP defined under section 15 of the PA 2008, as the capacity exceeds 50MW and, as such, must be consented by a DCO. The PA 2008 sets out that the SoS is responsible for determining whether to grant a DCO for the Proposed Development and under the PA 2008 there is the power to appoint an Examining Authority (ExA) of an appointed person(s) to manage and examine the Application on behalf of the SoS.

1.3.3 The ExA, appointed by the SoS in accordance with the provisions of the PA 2008, will make procedural decisions, examine the Application and make a recommendation to the SoS who will then decide whether to grant development consent.

1.3.4 Section 104 of the PA 2008 prescribes that DCO applications must be determined in accordance with any relevant National Policy Statements (NPS) where the NPS has effect in relation to development of the description to which the Application relates, subject to a number of specific exceptions.

1.3.5 The SoS published a suite of energy NPSs in November 2023, which came into force in January 2024. The Applicant considers that the following NPSs (hereafter referred to as the NPSs or individually as EN-1, EN-3 or EN-5) have effect in relation to the Proposed Development and are therefore the primary policy basis for SoS's determination of the Application:

- Overarching National Policy Statement for Energy 2023 (EN-1) (NPS EN-1) **[Ref 2]**;
- National Policy Statement for Renewable Energy 2023 (EN-3) (NPS EN-3) **[Ref 3]**; and
- National Policy Statement for Electricity Networks Infrastructure 2023 (EN-5) (NPS EN-5) **[Ref 4].**

1.4 Pre-Application Consultation

1.4.1 The PA 2008 requires applicants for DCOs to carry out statutory pre-application consultation on their proposals. The PA 2008 and related regulations set out the requirements for how this consultation must be undertaken and the Applicant has also undertaken non-statutory consultation as part of developing its proposals and seeking feedback from consultees.

1.4.2 The Applicant has adopted a two-stage approach to pre-application consultation. Non-statutory consultation (Phase One Consultation: Early plans and proposals) was carried out between 27 September and 8 November 2023. A statutory consultation (Phase Two Consultation: Updated plans and proposals) in compliance with Sections 42, 47 and 48 of the PA 2008 was undertaken between 29 May and 9 July 2024, supported by a Preliminary Environmental Impact Report (PEIR) in accordance with the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) **[Ref 5].**

1.4.3 In addition to the two-stage approach outlined above, the Applicant has undertaken extensive engagement with West Lindsey District Council (WLDC), Bassetlaw District Council (BDC), Newark and Sherwood District Council (NSDC), Lincolnshire County Council (LCC) and Nottinghamshire County Council (NCC) ('the host authorities'), statutory prescribed persons, relevant statutory undertakers, those with an interest in the land, and those who may be affected by the Proposed Development throughout the development of the proposal.

1.4.4 This ongoing engagement with the host authorities has comprised of regular meetings where updates have been provided on the Proposed Development, including on design development and technical meetings with the host local authorities' technical specialists.

1.4.5 For the purposes of community consultation, the Applicant defined two zones of consultation: one area that included around 2,140 addresses by drawing a radius 2km from the Proposed Development boundary and another area that expanded further than the 2km radius to ensure parts of communities were not excluded. Being in close proximity to the Proposed Development, this zone was identified as the group of homes and businesses that would likely have the greatest interest in the Proposed Development.

1.4.6 On 9 October 2024, the Applicant met with the Local Authorities to discuss the Adequacy of Consultation Milestone (AoCM) and what would be required. It was agreed that the Applicant would provide a written summary of the consultation activities taken and compliance with the Statement of Community Consultation (SoCC). On 6 November 2024, the Applicant submitted the summary to the local authorities. Four of the five local authorities responded. This AoCM and responses was submitted to PINS on 9 December 2024.

1.4.7 The pre-application consultation undertaken by the Applicant and how feedback from consultees has informed the Proposed Development is reported within the **Consultation Report [EN010159/APP/5.1]**.

1.5 Supporting Documents

1.5.1 The Proposed Development is 'EIA development' as defined by the EIA Regulations, which means that an Environmental Impact Assessment (EIA) is required. Therefore, an Environmental Statement (ES) has been prepared and is submitted with the DCO Application.

1.5.2 A summary of the description of the Proposed Development can be found in the Environmental Statement (ES) **Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5].** The terminology used in this Planning Statement is defined in the **Glossary [EN010159/APP/7.17].**

1.5.3 The reports and plans accompanying the DCO Application are set out in the **Guide to the Application [EN010159/APP/1.3].**

1.5.4 The Application is also supported by a Site Selection Report, which can be found in Appendix 1 of this Planning Statement. This assessment sets out the process for identifying the Order Limits for the Proposed Development, with reference to the siting considerations set out in NPSs EN-1 and EN-3.

1.6 Purpose and Structure of the Document

1.6.1 This document aims to provide an overview of the Proposed Development and its impacts and demonstrate the acceptability of the Proposed Development when assessed against the provisions of the legislation and policies relative to the benefits of the Proposed Development.

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

- Section 2 describes the Order Limits, including its surrounding areas, and summarises the process of selecting the Order Limits and relevant planning history within the Order Limits.
- Section 3 provides an overview of the Proposed Development and its component parts.
- Section 4 describes the need for the Proposed Development, highlighting the urgent need for renewable energy and the benefits of the Proposed Development.
- Section 5 describes the Design Approach that has informed the design development of the Proposed Development.

- Section 6 provides an overview of the decision-making framework, legislation, policy context, and other important and relevant considerations.
- Section 7 sets out the Applicant's key engagement to do date and how it has helped inform the Proposed Development
- Section 8 provides an assessment of the Proposed Development and demonstrates the Proposed Development's compliance with all policy requirements, as outlined within the relevant NPSs and any other planning policy documents the Applicant considers may be both important and relevant.
- Section 9 presents the conclusions of the Planning Statement and the planning balance.

2. Site Context

2.1 Introduction

2.1.1 This section summarises the physical characteristics of the Order Limits and its surrounding context, including policy allocations and designations.

2.1.2 The Proposed Development encompasses approximately 1,409 hectares (ha) of land and falls across two county boundaries and three local authority boundaries. With approximately 1,203ha of the Order Limits falling within Nottinghamshire County Council and the remaining 206ha of the Site falling within Lincolnshire County Council. The Order Limits also extends across three district administrative areas; these being Newark and Sherwood District Council, West Lindsey District Council and Bassetlaw District Council, as shown on the **Location Plan [EN010159/APP/2.1].**

2.1.3 The River Trent dissects the Order Limits in a north-south alignment. The nearest villages include the following:

- Fledborough, located within 50m to the east of the nearest boundary of the Site;
- Ragnall, located within 50m to the west of the nearest boundary of the Site;
- Newton on Trent, located within 200m of the nearest boundary of the Site to the north;
- North Clifton and South Clifton, located within 500m of the nearest boundary of the Site to the east; and
- Dunham, located within 800m to the north of the nearest boundary of the Site.

2.1.4 In addition, there are a number of isolated properties, farmsteads and hamlets, which are dispersed throughout the local landscape of the area.

2.2 Site Location

2.2.1 The location of the Order Limits is shown on the submitted **Location Plan [EN010159/APP/2.1]** and described in **ES Volume 1, Chapter 3: Description of the Site and Surrounding Area [EN010159/APP/6.3].**

2.2.2 The Order Limits contains agricultural fields located to the east and west of the River Trent. Hedgerows, trees and woodland form the boundaries to many of the land parcels within the Site. At its maximum, the Site extends approximately 4.5km in a north-south direction and approximately 8km in an east-west direction.

2.2.3 The Order Limits is predominantly arable agricultural land and includes a network of hedgerows, drains and ditches, and blocks of woodland. The Agricultural Land Classification (ALC) mapping published by Natural England indicates that much of the Site consists of Grade 3 (good to moderate agricultural land) with an area of Grade 4 (poor) land to the southeast, although further information is now available on ALC grading based on the site surveys undertaken by the Applicant which is discussed later in this Planning Statement and set out in **ES Volume 2, Chapter 8: Land and Soils [EN010159/APP/6.8]**.

2.2.4 The Order Limits are accessible from a number of existing field accesses that are currently capable of facilitating the movement onto the Site of large agricultural machinery.

2.2.5 The following roads can be found within and surrounding the Site:

- A57 - A principal two-way single carriageway road which forms part of the primary road network, running in east to west direction, abutting the Order Limits;
- A1133 - A two-way single carriageway road, running north to south direction, which runs through the Order Limits;
- Moor Lane – A rural 60mph single carriageway road, approximately 6m in width and is accessible off the A1133.

  Roadwood Lane – A two-way rural single carriage road accessible off the A57 and abutting the Order Limits;

  Main Street - A two-way rural single carriage road connected to Roadwood Lane, via West Road, which runs in north to south direction;
- Polly Taylor's Road - A two-way rural single carriageway road, running east to west direction, which runs through the Order Limits; and
- Crabtree Lane - A two-way rural single carriageway road, running north to south direction, which runs through the Order Limits.

2.2.6 There is an extensive network of public rights of way (PRoWs) which link with the surrounding settlements. These are described as follows:

- LL|NwOT|97/4
- NT|NorthClifton|FP1
- NT|NorthClifton|FP4
- NT|NorthClifton|FP4A
- NT|NorthClifton|FP5

- NT|NorthClifton|BOAT9
- NT|NorthClifton|BOAT12
- NT|NorthClifton|BW10
- NT|NorthClifton|BW11
- NT|Ragnall|FP1
- NT|Ragnall|FP2
- NT|Ragnall|BW3
- NT|Fledborough|FP8
- NT|Fledborough|FP9
- NT|Fledborough|FP10
- NT|Fledborough|FP11
- NT|Darlton|BW1
- NT|Marnham|FP4
- NT|Thorney|FP1

2.2.7 Further information related to access is presented within **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12].**

2.3 Designations and Allocations

2.3.1 The Order Limits have been selected and designed to avoid designated areas. It is not covered by any statutory ecological designations and no ancient woodland. None of the land within the Order Limits is covered by any statutory landscape designations, i.e., National Parks, or National Landscapes.

2.3.2 The closest statutory designations to the Order Limits include the following:

- Birklands and Bilhaugh Special Area of Conservation (SAC) which is located approximately 12km from the nearest part of the boundary to the west of the Site and is designated for its presence of old acidophilous oak woods and is notable for its rich invertebrate fauna, particularly spiders, and for a diverse fungal assemblage;
- Besthorpe Warren Site of Special Scientific Interest (SSSI), which is located approximately 5km to the southeast from the nearest part of the Site boundary, and is designated for the mosaic of dry acid grassland and dune grassland;

- Besthorpe Meadows SSSI is located approximately 5km south from the nearest part of the Site boundary, and is designated for the wet grassland and associated wetland habitats; and
- Spalford Warren SSSI is approximately 2km south from the nearest part of the Site boundary and is designated for the presence of grass heath.

2.3.3 In addition to the above, whilst currently not subject to formal designation, the Sherwood Forest prospective potential Special Protected Area (ppSPA) is recognised by planning policy and statutory consultees to support notable populations of nightjar and woodlark. This ppSPA is located approximately 16km to the west from the centre of the Site.

2.3.4 The River Trent runs through the Order Limits on a general south-north alignment flowing from Staffordshire northwards toward the Humber Estuary. The river effectively separates the Site into those parcels to the west and those to the east of the River Trent. The River Trent is tidal at this location and, as shown in **ES Volume 2, Figure 3-4 [EN010159/APP/6.20],** approximately 56% of the Order Limits is within Flood Zones 2 and 3, indicating a medium and high probability of flooding from tidal and fluvial sources. Of the Flood Zone area of the Order Limits, 46% is situated within Flood Zone 3 and 10% of the Site in Flood Zone 2.

2.3.5 There are no Local Wildlife Sites (LWS) within the Order Limits, although two sites are located on the boundary, as shown in **ES Volume 2, Figure 3-6 [EN010159/APP/6.20]**:

- The Fledborough Holme LWS - located east of Fledborough and west of the River Trent.
- Fledborough to Harby Dismantled Railway LWS adjacent to the High Marnham Substation and west of the River Trent.

2.3.6 There are no listed buildings or Registered Parks and Gardens within the Order Limits. However, the South Clifton Conservation Area is located to the east and within 1km from the closest edge of the Site boundary.

2.3.7 The Scheduled Monument (SM) of Whimpton Moor Medieval Village and Moated Site, Ragnall is partially located within the Order Limits but excluded from the developable area. Further information on the impacts of this is provided in Chapter 8 of this Planning Statement.

2.3.8 A number of listed buildings are also located outside of the Order Limits but within 1km of the Order Limits boundary comprising:

- 3 Grade I listed buildings;
- 6 Grade II* listed buildings; and

- 61 Grade II listed buildings.

2.3.9 **ES Volume 1, Chapters 6 - 19 [EN010159/APP/6.6 – 6.19]** provide further details of the existing environmental baseline.

2.3.10 Part of the Order Limits is located within a Mineral Safeguarding Area (MSA) through a Local Plan Policy requirement. The **Mineral Safeguarding Assessment [EN010159/APP/7.3]** provides a comprehensive assessment on the impact of the Proposed Development on the MSA, which should be read in conjunction with this Planning Statement.

2.3.11 The Order Limits are within the administrative area of two Minerals Planning Authorities:

- NCC is the Minerals Authority relevant to the area of the Order Limits within NSDC and BDC; and
- LCC is the Minerals Authority relevant to the area of the Order Limits within WLDC.

2.3.12 The implications of the Proposed Development on minerals resources are set out in the **Mineral Safeguarding Assessment [EN010159/APP/7.3]**

2.4 Relevant Planning History

2.4.1 As an agricultural site, the relevant planning history of the land within the Order Limits is very limited.

2.4.2 A schedule of planning history is provided in Appendix 2 of this Planning Statement. This schedule indicates that there are several extant planning permissions within the Order Limits, at the land at High Marnham Power Station. However, the High Marnham Power Station is located within the Order Limits to allow for cabling between the onsite substations and the National Grid substation. The Proposed Development will not be preventing any planning permissions on this land from being implemented and the planning permissions have been included in the cumulative assessment.

3. Proposed Development

3.1 Introduction

3.1.1 This section provides an overview description of the Proposed Development, including its components and proposed construction, operation, and decommissioning activities. **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5]** contains the full project description. **ES Volume 1, Chapter 3: Description of the Site and Surrounding Area [EN010159/APP/6.5]** provides an overview of the Proposed Development's location.

3.1.2 The Proposed Development is described in Schedule 1 of the **Draft DCO [EN010159/APP/3.1],** where the "authorised development" is divided into work packages. The Work Numbers (Work No.) for those packages are identified below and are referred to throughout the ES and correspond to the **Works Plans [EN010159/APP/2.3].**

3.2 Components of the Order Limits

3.2.1 The Proposed Development comprises the construction, operation and maintenance, and decommissioning of a solar photovoltaic (PV) array electricity generating facility. The project includes solar PV panels, Battery Energy Storage Systems (BESS), onsite substations and associated grid connection infrastructure which will allow for the generation and export of electricity to the proposed National Grid High Marnham Substation. The Applicant has secured a connection agreement with National Grid which will allow export and import of up to 740 megawatts (MW) of electricity to the National Grid High Marnham Substation.

3.2.2 The area subject to the DCO Application where the Proposed Development will be carried out is shown on the **Location Plan [EN010159/APP/2.1]**. All land within the Order Limits will be included in the Development Consent Order (DCO) Application, this will comprise the following

- PV Modules;
- Mounting Structures;
- Power Conversion Stations (PCS);
- Battery Energy Storage Systems (BESS);
- Onsite Substations and Ancillary Buildings;
- Low Voltage Distribution Cables;
- Grid Connection Cables;

- Fencing, security and ancillary infrastructure;
- Access Tracks; and
- Green Infrastructure (GI).

3.2.3 The **Design Approach Document [EN010159/APP/5.8]** provides further details of how the Proposed Development has fulfilled the requirement for good design. This includes the evolution and application of Design Principles, which have been used to inform the planning and design process to date and will continue to inform the design at later stages of the Proposed Development.

3.3 Existing Site Features

3.3.1 The Order Limits are predominantly arable agricultural land and includes a network of hedgerows, drains and ditches, and blocks of woodland.

3.3.2 The River Trent runs through the Order Limits on a general south-north alignment flowing from Staffordshire northwards toward the Humber Estuary. The river effectively separates the Order Limits into those parcels to the west and those to the east of the River Trent. A network of drains and field ditches that follow field boundaries are also present across the Site.

3.3.3 The Order Limits are accessible from a number of existing field accesses that are currently capable of facilitating the movement of large agricultural machinery onto the Order Limits. The primary point of access will be 6 metres wide in order to enable two-way access for construction vehicles, as well as ensuring that the road infrastructure is suitable to allow for construction vehicles to travel in either direction from the primary compound to the secondary compounds. Order Limits access and routing strategies have been discussed and discussed throughout consultation with the relevant highways authorities as set out within the **outline Construction Traffic Management Plan [EN010159/APP/7.9]**.

3.4 Flexibility and Development Capacity

3.4.1 The Applicant wishes to retain flexibility regarding the design detail of certain components of the Proposed Development, as is acknowledged in EN-1 Part 4.3, Section 2.6 and Paragraph 2.10.70 of EN-3. The extent of flexibility sought by the Applicant is described in **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5].**

3.4.2 Paragraph 4.3.11 of EN-1 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 continues that where some details are still to be finalised, the ES should assess, to the best of the Applicant's knowledge, what the likely worst-case environmental, social, and economic effects of the Proposed Development will be.

3.4.3 Paragraph 2.10.70 of EN-3 states that not all aspects of the proposal for solar PV development may have been settled in precise detail at the point of application. Such aspects, including the type, number, and dimensions of panels, layout, and spacing, are among the aspects that are not settled down in a final design. It continues to state in paragraph 2.10.71 that applications may include a range of options based on different panel numbers, types, layouts, and whether storage will be installed (with the option to install further panels as a substitute).

3.4.4 It is important to note that the exact design details of the Proposed Development cannot be confirmed until consent is granted and the construction tendering process for the design has been completed. The local planning authorities would be required to approve the detailed design in advance of any part of Works No. 1 to 6 and 8 commencing should development consent be granted. The detailed design must be in accordance with Requirement 5 of the **Draft DCO [EN010159/APP/3.1]** and with the **Works Plans [EN010159/APP/2.3].**

3.4.5 This is to allow for flexibility to accommodate changes in technological advancements. For example, the enclosure or building sizes may vary depending on the contractor selected, their specific configuration, and plant selection. This is particularly important to maintain flexibility due to the rapid pace of change in solar PV and energy storage technologies, as technology that does not currently exist could be utilised. Therefore, sufficient flexibility has been sought for the final design within the DCO Application.

3.4.6 Establishing the maximum parameters enables a robust assessment of likely significant environmental effects to be undertaken within this ES for topics where the nature of the assessment requires a specific level of detail, such as maximum heights, massing, or noise levels. Thus, the assessment parameters form the basis of the assessment. The assessment parameters are detailed in the works descriptions, which are linked to Schedule 1 within the **Draft DCO [EN010159/APP/3.1]** and are in full in the **Works Plans [EN010159/APP/2.3]** and a number of control documents as listed with the **Guide to the Application [EN010159/APP/1.1]** and supported by the figures presented in the **Environment Statement [EN010159/APP/6.20]**,listed at paragraph 9.1.5 of the **Guide to the Application [EN010159/APP/1.1].** In addition, further information around the assessment parameters are stated within the **Outline Design Parameters [EN010159/APP/5.9]** and the **Commitments Register [EN010159/APP/7.15].**

3.4.7 Solar panels generate electricity in direct current (DC) form. PV modules feed into inverters which convert electricity to alternating current (AC). Paragraph 2.10.50 of the EN-3 recognises that 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 the combined capacity of installed inverters (measured in AC).

3.4.8 Paragraph 2.10.51 of EN-3 identifies that for the purposes of determining the capacity thresholds in Section 15 of the Planning Act 2008, all forms of generation other than solar are currently assessed on an AC basis, however a practice has

developed previously whereby solar farms are assessed on their DC capacity. It continues that from the date of designation of the update of EN-3 (17 January 2024), for the purpose of Section 15 of the Planning Act 2008, the maximum combined capacity of the installed inverters measured in AC should be used for determining the solar site capacity.

3.5 Associated Develoment

3.5.1 From the **Explanatory Memorandum [EN010159/APP/3.2]**, all aspects of the Proposed Development that comprise the associated development are considered against the relevant tests and examples set out in s115 of the Planning Act 2008.

3.5.2 In regard to the inclusion of BESS within the Proposed Development, the Applicant proposes to install BESS to provide aid in the integration of high levels of renewable generation into the electricity market. This is in response to a developing need for renewable energy. This provides a level of flexibility to the electricity network to manage demand.

3.5.3 Paragraph 3.3.25 of EN-1 recognises that storage has a key role to play in achieving net zero and providing flexibility to the energy system. Paragraph 3.3.26 continues to state that "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 when demand is higher".

3.5.4 The BESS is considered to form Associated Development, in accordance with the 'Planning Act 2008: Guidance on associated development applications or major infrastructure projects'. The guidance sets out 4 principles related to Associated Development, which include the following:

i. The definition of associated development requires a direct relationship between associated development and the principal development. Associated development should therefore either support the construction or operation of the principal development, or help address its impacts.

ii. Associated development should not be an aim in itself but should be subordinate to the principal development.

iii. Development should not be treated as associated development if it is only necessary 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.

iv. Associated development should be proportionate to the nature and scale of the principal development. However, this core principle should not be read as excluding associated infrastructure development (such as a network connection) that is on a larger scale than is necessary to serve the principal development if that associated infrastructure provides capacity that is likely to be required for another proposed major infrastructure project. When deciding whether it is appropriate for infrastructure which is on a larger scale than is necessary to serve a project to be treated as associated development, each application will have to be assessed on its own merits. For example, the Secretary of State will have regard to all relevant matters including whether a future application is proposed to be made by the same or related developer as the current application, the degree of physical proximity of the proposed application to the current application, and the time period in which a future application is proposed to be submitted.

3.5.5 The proposed BESS will primarily support the solar development by storing generated electricity and exporting it to NETS at times of demand. It is intrinsically linked to the principal development in that it provides support to increase operational efficiency in a way that the principal development cannot achieve on its own. The BESS's primary function cannot exist without the principal development. The grid connection agreement does also allow for import, storage and redistribution of electricity to and from the National Grid. The Applicant considers the Associated Development tests set out above are met in terms of the inclusion of the BESS within the Proposed Development.

3.6 Lifetime of the Development

3.6.1 EN-3 discusses typical project lifetimes for solar photovoltaic generation projects in section 2.10. Paragraph 2.10.65 notes that an upper limit of 40 years is typical for a solar farm, although applicants may seek consent without a time-period or for differing time-periods of operation. Paragraph 2.10.68 goes on to note that decommissioning of solar PV panels can be achieved relatively easily and cheaply.

3.6.2 Impacts on the use of the land are assessed in the Environmental Statement. The Applicant is seeking a time limited consent, and the Proposed Development will be operational for up to 60 years, after which time it will be decommissioned, and the land reverted to its original condition.

3.6.3 In line with paragraph 2.10.69 of EN-3, the ES sets out how the Proposed Development would be decommissioned at the end of the operational life of the generating station. The **Draft DCO [EN010159/APP/3.1]** includes a requirement 20 that the Proposed Development must be decommissioned in accordance with the **Outline Decommissioning Environmental Management Plan (including restoration) (oDEMP) [EN010159/APP/7.6].**

3.7 Construction, Operation and Decommissioning

Construction

3.7.1 The construction phase is anticipated to commence in 2027, subject to the DCO being granted, and will be completed in 2029. The final programme will be dependent on detailed design and environmental constraints upon the timing of construction activities. Construction activities will be undertaken in accordance with the principles set out within the **Outline Construction Environmental Management Plan (oCEMP) [EN010159/APP/7.4].**

3.7.2 Indicative construction activities likely to be required and their duration are provided in Table 5.6 of **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5].**

3.7.3 An **Outline Construction Environmental Management Plan (oCEMP) [EN010159/APP/7.4]** has been prepared to support the DCO Application and secured through Requirement 13 of the **Draft DCO [EN010159/APP/3.1].** The oCEMP sets out legislation, guidance, best practice guidance and the mitigation measures identified through the EIA process to be employed during construction phase, such as construction lighting avoiding ecological sensitive habitats. The oCEMP will form the framework for a detailed CEMP that will be agreed with the local planning authorities prior to construction commencing.

3.7.4 An **Outline Construction Traffic Management Plan (oCTMP) [EN010159/APP/7.9]** has been prepared and submitted to support the DCO application and includes details on construction logistics and construction worker travel. Information is also provided to guide the delivery of material, plant, equipment and staff during the construction phase. The oCTMP will form the framework for a detailed CTMP that will be agreed with the relevant county councils prior to construction commencing.

Operation

3.7.5 During the operational phase of the Proposed Development, onsite activities will be minimal and will principally relate to the vegetation management, equipment maintenance and servicing, replacement and renewal of any components that fail, and monitoring and inspection. It is anticipated that maintenance and servicing will include the inspection, removal, reconstruction, refurbishment or replacement of faulty or broken equipment to ensure the continued effective operation of the Proposed Development.

3.7.6 There will typically be up to 15 members of permanent staff onsite during the operational phase of the Proposed Development who will be undertaking the ongoing maintenance. However, when larger scale maintenance is required, for example for the replacement of panels of other apparatus as part of the Proposed Development, additional staff members will be required to assist.

3.7.7 The likely estimates, type and quantities of waste generated during the operational phase, relating to the maintenance of the Proposed Development, as well as the measures to reduce waste are presented in the **Outline Site Waste Management Plan (oSWMP) [EN010159/APP/7.12]).**

3.7.8 An Operational Environmental Management Plan (OEMP), which will be produced in accordance with the **Outline Operational Environmental Management Plan (oOEMP) [EN010159/APP/7.5],** will include measures which control elements including working hours, lighting, parking, security and monitoring of electrical equipment and drainage, material storage, management of other vegetation and permissive paths, as well as noise limits and management of waste.

3.7.9 An **Outline Landscape and Ecology Management Plan (oLEMP) [EN010159/APP/7.7]** has been prepared and submitted to support the DCO Application and secured through Requirement 8 of the **Draft DCO [EN010159/APP/3.1]**, which will focus on the management of both the landscape and ecological features.

Decommissioning

3.7.10 Decommissioning will include the removal of all above ground infrastructure, including the BESS and Substation foundations. Permissive paths will also be removed. Underground cables may remain in situ. Trees and hedgerows planted as part of the Proposed Development are assumed to remain in situ when the land is returned to the landowners. It is also expected any clear span bridges used throughout the operational period will also remain in place.

3.7.11 The Proposed Development is expected to be operational for up to 60 years, after which time it will be decommissioned and the land returned to original condition (other than established habitats provided as part of the Proposed Development which are assumed to remain).

3.7.12 It is considered all of the solar PV modules and batteries used as part of the Proposed Development will be recycled. This is considered in further detail within the waste assessment set out in the **Outline Site Waste Management Plan (oSWMP) [EN010159/APP/7.12]**. At this stage, it is considered decommissioning will occur over a two year period.

3.7.13 The Solar PV Site would be reinstated in accordance with relevant legislation, policy and guidance at the time of decommissioning and a detailed Decommissioning Environmental Management Plan (DEMP) will be required to be in accordance with the **Outline Decommissioning Environmental Management Plan (inc restoration) (oDEMP) [EN010159/APP/7.6]** which has been prepared to support the DCO Application and secured through Requirement 20 of the **Draft DCO [EN010159/APP/3.1].**

4. Need For and Benefits of the Proposed Development

4.1 Need for the Proposed Development

4.1.1 This section sets out the need for the Proposed Development and how it is supported by both international and national legislation and policy. It summarises key points from the **Statement of Need [EN010159/APP/7.1]** and includes a summary of the other benefits delivered by the Proposed Development.

4.1.2 As demonstrated within NPS EN-1, there is a clear urgent need for the type of Proposed Development that this application is demonstrating.

4.1.3 EN-1 notes 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 a need for this type of infrastructure being urgent. This is further set out specifically within EN-1 paragraphs 3.2.6 – 3.2.8. Paragraph 3.2.8 specifically notes that "*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"*.

4.1.4 Urgent and unprecedented actions are required on a global scale to halt climate change. A rapid increase in the supply of low carbon electricity is needed for the UK to meet its legally binding climate change targets. Solar generation is a critical part of the UK's strategy to achieve net zero by 2050, a key step towards which is the government's national mission for 'Clean Power by 2030'. This is further explained within section 2.4 of the **Statement of Need [EN010159/APP/7.1].**

4.1.5 The NPSs, which came into force in January 2024, established the urgent need for new renewable energy generation, to which substantial weight should be given in the determination of an application for development consent. This section discusses the key drivers underpinning the need for renewable energy within the UK and the Government's policy that there is an urgent need for new energy NSIPs.

4.1.6 The NPSs confirm that large-scale ground-mounted solar farms have a critical role to play in achieving the government's aims and establishes a critical national priority (CNP) for low-carbon infrastructure, including largescale solar farms, because of the decarbonisation, energy security and affordability benefits that they deliver.

4.1.7 The NPSs also confirm that assets which provide flexibility to the national electricity system, or to the energy system generally, are also needed to achieve national decarbonisation and energy security aims. The NPSs state that government is supportive of solar that is co-located with storage to maximise the efficiency of land

use. The Proposed Development, which is a large-scale solar plus energy storage scheme, is therefore fully aligned with the government's aims.

4.1.8 The NPSs explain that the availability of grid connection, suitable irradiance levels and local topography are key inputs to the selection of sites suitable for large-scale solar generation developments. The number of locations within the UK where large-scale solar generation is suitable is therefore likely to be limited, and this is a material issue when considering how the UK is to meet the urgent need for low-carbon generation as is set out in the NPSs.

4.1.9 The Government's Clean Power Action Plan 2030, published in December 2024, reinforces the urgent need for low carbon generation schemes to come forwards to pave the way to decarbonising the wider economy by 2050 as we pursue the electrification of heat in buildings, transport, and industry.

4.1.10 However, the need for new clean power will not stop at 2030. The continued delivery of low-carbon generation facilities beyond 2030 is necessary to meet future electricity demand growth and achieve essential wider societal carbon savings. 'Clean power by 2030' prepares the UK for the rapid growth in power demand expected over the 2030s and 40s. It is also important to continue to bring forward schemes in the event that 'Clean Power by 2030' is not achieved.

4.1.11 The **Statement of Need [EN010159/APP/7.1]** concludes that the decarbonisation, security of supply and affordability benefits delivered by the Proposed Development to the national urgent need for low-carbon generation should be accorded very significant weight in the planning balance.

4.2 National Policy Context

4.2.1 The legal requirement to achieve net zero underpins the urgent need for the delivery of large capacities of both consentable and affordable electricity generation schemes which make best use of Great Britain's natural low-carbon energy resources and available grid connection points.

4.2.2 Paragraph 4.2.1 of EN-1 sets out that the "Government has committed to fully decarbonising the power system by 2035, subject to security of supply, to underpin its 2050 net zero ambitions". To fully decarbonise the power system within such timeframes, the Government has concluded, through paragraph 4.2.4 of EN-1, that "there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure".

4.2.3 The critical national priority for nationally significant low-carbon infrastructure, the definition of which includes solar PV, is set out in paragraph 4.2.5 of EN-1. The urgent national need for energy-generating stations set out in both EN-1 and EN-3 is of great significance to the determination of the Proposed Development. Paragraph 3.3.63 of EN-1 explains that:

"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"

4.2.4 In addition to the recognised need to deploy nationally significant low carbon CNP infrastructure, EN-1 also recognises that the UK's energy security and Net Zero ambitions will "only" be delivered if we can enable the development of new low-carbon sources of energy at both "speed and scale."

4.2.5 Paragraph 4.2.5 of EN-1 defines the relevant low carbon infrastructure that is captured by CNP policy. It states that for electricity generation this relates to "*all onshore and offshore generation that does not involve fossil fuel combustion".* There is a presumption under the NPSs that the urgent need for CNP infrastructure will outweigh any residual effects in all but the most exceptional cases (paragraph 4.1.7 of EN-1). This presumption does not apply to residual impacts that present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats, or unacceptable risk to achieving net zero. Where no such residual impacts exist, the presumption weighs in favour of the need for CNP infrastructure.

4.2.6 EN-3 reaffirms that the Government sees Solar Photovoltaic Generation as "*a key part of the government's strategy for low-cost decarbonisation of the energy sector*" (paragraph 2.10.9).

4.2.7 Paragraph 2.10.10 of EN-3 states, "*Solar also has an important role in delivering the government's goals for greater energy independence. The British Energy Security Strategy states that government expects a five-fold increase in combined ground and rooftop 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"*.'

4.2.8 Solar generation is expected to make an important contribution to the UK's renewable energy generating capacity towards 2050.

4.2.9 The NPSs demonstrate that the need for solar technology (as a renewable source) in the UK is urgent and significant and has increased, with nationally significant solar technology now defined as CNP infrastructure (EN-1 Section 3.2 and paragraphs: 3.3.62, 4.2.4, 4.2.5, EN-3 paragraphs 2.10.9)

- Large-scale solar is technically and economically feasible (EN-3 paragraph 2.10.14)

- Large-scale solar can and will bring benefits for the UK (EN-3 paragraphs 2.10.11, 2.10.89) and
- The demand for electricity is likely to increase significantly in the coming years (EN-1 paragraph 3.3.3)
- Flexibility in energy supply is also needed (EN-1 paragraphs 3.3.3, 3.3.5 and 3.4.13)

4.2.10 The **Statement of Need [EN010159/APP/7.1]** explains that the development of large-scale solar generation reflects the national policy position that there is a critical national priority for nationally significant low-carbon infrastructure, including solar generation, and that solar is a key part of the national strategy for low cost decarbonisation of the energy sector. It builds upon the case made in the NPSs to demonstrate why the development such as the Proposed Development is urgently needed at the scale proposed, why the proposed location is highly suitable for such a scheme, and how the Proposed Development also addresses all relevant aspects of established and emerging government energy and climate change policy and commitments.

4.3 Other Benefits of the Proposed Development

4.3.1 The Proposed Development will deliver other benefits as well as significantly contributing to meeting policy commitments and legal decarbonisation targets for securing renewable energy. These benefits occur during different stages of the Proposed Development's lifetime. The Proposed Development includes the following other benefits:

- Existing hedgerows, woodland, ditches, ponds and field margins will be retained within the Order Limits, with the exception of small breaks and/or crossings required for new access tracks, security fencing, cable routes and new access junctions.
- Across the Order Limits, the following approximate areas will be planted for habitat creation, landscaping and visual screening:
    - Native grassland planting: approximately 1240ha
    - Woodland planting: approximately 5.5ha
    - New hedgerow planting and infilling of existing hedgerow: approximately 15km
- Permissive paths - New permissive paths have been designed to supplement the existing Public Right of Way (PRoW) network, linking existing routes and creating new connections.
- Biodiversity Net Gain – Minimum of 10% Biodiversity Net Gain
- Land and Soils - due to the lack of application of agricultural practices (including the reduction in physical working of the soils, changes to the composition of the soil due to an increase in the soil organic

matter, and a reduction in the use of herbicides, pesticides or fertilisers) there is a beneficial effect on the land and soils.
- Human Health – wiser societal infrastructure and positive impact on standard of living.
- Socio-Economics – an average of 554 full time jobs over the two-year construction phase, with a peak of up to 750 workers at any one time and a minimum of 15 full-time operational staff

4.3.2 The Applicant considers that the contribution these aforementioned benefits would make should carry significant weight in the planning balance. Section 8 of this Planning Statement sets out how this has been considered and the contribution that they make to the overall conclusion that development consent should be granted for the Proposed Development.

4.3.3 While not a consideration for the SoS, the Applicant is proposing a Community Fund, the details of which are still to be confirmed, but which will be announced in due course, following discussions with the host local authorities. It is envisaged that it would be managed by an independent third party and delivered in partnership with the local community. Local people would be able to advise on the fund strategy and spend, to prioritise issues that are important to the local area. The Applicant has already launched a smaller Community Fund in advance of submission of the Application which local projects could apply to access funds of up to £1,000 per project.

4.3.4 The total amount of funding would be based on the final installed capacity of the Proposed Development. The Community Fund would be index linked from the first payment, with the RPI base rate linked to the operation date of the Proposed Development and reviewed annually.

5. Design Approach

5.1.1 In accordance with policy requirements, the approach to achieving good design was considered at the outset for the Proposed Development, and the Applicant developed a framework for good design which was then used to inform the proposals from an early stage.

5.1.2 Good design outcomes will be secured in the detailed design stage of the Proposed Development, in accordance with the EIA, via control documents secured by the **Draft DCO [EN010159/APP/3.1].** Adherence to the control documents will secure good design outcomes, mitigation to manage the Proposed Development in accordance with the conclusions of the ES, and provide flexibility. A full list of control documents is set out in the **Guide to the Application [EN010159/APP/1.3]** in section 3.3**.** A full list of commitments is set out in the **Commitments Register [EN010159/APP/7.15].**

5.1.3 The Applicant adopted 10 Design Principles to guide the design of the Proposed Development at the early stages of the project, which are informed by both the United Nations Sustainable Development Goals and National Infrastructure Commission. These Design Principles are set out in the **Design Approach Document [EN010159/APP/5.8].**

5.1.4 The Design Principles are based on an understanding of the Proposed Development's local context, the people it could affect, and the potential benefits and outcomes it can deliver. The Design Principles drive design-related decision-making throughout the Proposed Development's lifecycle and are continually tested and improved in response to further baseline survey work, design evolution, environmental assessment, and stakeholder feedback to secure the best outcomes at detailed design. All the Design Principles are described on page 34 of the **Design Approach Document [EN010159/APP/5.8].**

5.1.5 Good design has been a fundamental consideration from the outset of the Proposed Development. The **Design Approach Document [EN010159/APP/5.8]** demonstrates how good design has been embedded in the Proposed Development via a clear set of project level design principles, termed Design Principles, how they have provided a shared understanding of desired outcomes for the Proposed Development, provided a framework for decision making, and ultimately driven good design outcomes that will be secured by the **Draft DCO [EN010159/APP/3.1].**

5.1.6 The policy and guidance documents that have informed the Applicant's approach to good design include EN-1, EN-3 and the National Infrastructure Commission's (NICs) 'Design Principles for National Infrastructure' report **[Ref 6]**. Section 5 and the **Policy Compliance Document [EN010159/APP/5.6]** provide a comprehensive assessment against these policy and guidance documents. New advice on good design for Nationally Significant Infrastructure Projects (NSIP) **[Ref 7]** has been issued by the Planning Inspectorate in October 2024 for DCO

Applications. The Applicant has prepared the **Design Approach Document [EN010159/APP/5.8]** in accordance with this guidance, using the structure in terms of each element 'Assemble, Research, Coordinate and Secure' as the starting point and subsequent structure for the **Design Approach Document [EN010159/APP/5.8].** The **final Design Approach Document [EN010159/APP/5.8]** not only describes the design rationale for the final masterplan, but also the process and key decisions taken, as well as the proposed approach to detailed design and how this will be controlled within the parameters assessed. It is therefore considered the Proposed Development is in accordance with this guidance, and a design-led approach has been taken. In addition, the Applicant has ensured that the design has evolved throughout the course of positive engagement to ensure it aligns with the relevant policy and guidance documents in relation to good design.

6. Legislation and Policy Framework

6.1 Overview

6.1.1 This section provides an overview of the legislative framework and the planning policy context for the Proposed Development. Section 8 outlines how the Proposed Development complies with this context where relevant.

Legislative Context

6.2 Planning Act 2008

6.2.1 The Planning Act 2008 **[Ref 1]** established the legal framework for applying for, examining and determining applications for NSIPs.

6.2.2 The Proposed Development constitutes an NSIP development, in accordance with the planning Act 2008, as it comprises:

"*The construction and extension of a generating station (Part 3, Section 14(1)(a) of the Planning Act 2008) with a generating capacity of more than 50 MW (Part 3, Section 15(2)(c))"*.

6.2.3 In accordance with Part 4 of the Planning Act 2008, development consent is required for development to the extent that it is or forms part of an NSIP.

6.2.4 Part 5 of Planning Act 2008 sets out that an application for an order granting development consent must be made to the SoS. The approach taken to pre-application and engagement was designed to ensure compliance with the legislative requirements set out in sections 42, 47, 48, 49 and 50 of the Planning Act 2008 while also exceeding these minimum requirements to ensure best practice. A **Consultation Report [EN010159/APP/5.1]** has been prepared that details compliance with sections 42, 47, 49 and 50 of the Planning Act 2008.

6.2.5 Part 6 of the Planning Act 2008 is to be applied when determining applications for orders granting development consent. Sections 103 to 107 provide the framework for decision-making, which in turn frames the focus of the examination of the application for a development consent order. Section 104 applies when a relevant NPS has effect for a NSIP.

6.2.6 In addition to the above, under section 104(2) of the Planning Act 2008, the SoS must have regard to:

- Any national policy statement which has effect in relation to development of description to which the application relates (a relevant national policy statement);

- Any local impact report submitted;
- Any matters prescribed in relation to development of description to which the application relates; and
- Any other matters which the SoS thinks are both important and relevant to the SoS's decision.

6.2.7 Section 104(3) of Planning Act 2008 notes that the SoS must decide the Application in accordance with any relevant National Policy Statement(s), except to the extent that one or more of subsections (4) and (8) of section 104 apply which relate to:

> *(4) where deciding an application with the relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.(5) where deciding an application in accordance with the relevant national policy statement would lead to the SoS being in breach of any duty imposed on themselves by or under any enactment. (6) Where deciding an application in accordance with the relevant national policy statement would be unlawful by virtue of any enactment.*
>
> *(7) Where the SoS is satisfied that the adverse impact of the proposed development would outweigh its benefits*
>
> *(8) Where the SoS is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.*

6.2.8 The Applicant's response to the specific requirements of Section 104 is set out in the Section 8 of this Planning Statement, including confirmation that none of the exceptions in subsections (4) to (8) apply in relation to the Proposed Development.

6.2.9 For the purpose of Section 104(2)(a), the following NPSs have effect in relation to the Proposed Development:

- Overarching NPS for Energy (EN-1) **[Ref 2]**;
- NPS for Renewable Energy Infrastructure (EN-3) **[Ref 3]**; and
- NPS for Electricity Networks Infrastructure (EN-5) **[Ref 4]**.

6.2.10 In addition, the Applicant considers that the following planning policy documents are both important and relevant to the SoSs decision:

- National Planning Policy Framework (NPPF) 2024 **[Ref 8];**
- The Lincolnshire Minerals and Waste Plan (Core Strategy and Development Management Policies adopted 2016 and Site Locations adopted 2017) **[Ref 9];**

- Local Transport Plan 5 **[Ref 10];**
- Nottinghamshire Minerals Local Plan (Adopted March 2021) **[Ref 11];**
- Bassetlaw Local Plan 2020-2038 (Adopted May 2024) **[Ref 12];**
- Central Lincolnshire Local Plan (Adopted April 2023) **[Ref 13];** and
- Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy (Adopted March 2019) **[Ref 14].**

6.2.11 It is expected that the local authorities will submit Local Impact Reports (LIRs), the neighbouring authorities may also submit a LIR. The reports should give details of the likely impact of a project on the local authority's area. Sections 104(2)(b) of the Planning Act 2008 explains that the Examining Authority and the SoS must have regard to any LIR submitted when deciding the application, as explained in the updated advice on Nationally Significant Infrastructure Projects: Advice for Local Authorities.

6.2.12 Finally, the Applicant considers that there are a number of other legislative and policy documents, as summarised below, that are important and relevant to the SoS's decision. The **Policy Compliance Document [EN010159/APP/5.6]** provides a comprehensive assessment, which should be read in conjunction with this section.

6.3 National Policy Statements

6.3.1 The UK Government produces National Policy Statements, and the Energy NPSs (EN-1 to EN-6) set out the Government's policy for the delivery of energy infrastructure and provide the legal framework for planning decisions for major infrastructure projects.

6.3.2 EN-1, EN-3, and EN-5 provide the primary policy basis for deciding a DCO Application. EN-1 provides the overarching policy position and solar PV generation falls within the EN-1 definition of CNP infrastructure. EN-3 outlines the SoS's decision making for solar PV generation considerations. EN-5 provides guidance for developers of nationally significant electricity network infrastructure projects.

6.3.3 There is a presumption under the NPSs that the urgent need for CNP infrastructure will outweigh any residual effects in all but the most exceptional cases. This presumption does not apply to residual impacts that present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats, or unacceptable risk to achieving net zero. Where no such residual impacts exist, the presumption weighs in favour of the need for CNP infrastructure where it has been demonstrated that the mitigation hierarchy has been applied.

6.3.4 The **Policy Compliance Document [EN010159/APP/5.6]** provides detailed evidence of compliance with relevant national and local policy documents and should be read in conjunction with this section.

Overarching National Policy Statement for Energy (EN-1)

6.3.5 EN-1 sets out the national policy for the delivery of energy infrastructure, including solar renewable electricity generation.

6.3.6 Part 3 of EN-1 paragraph 3.1.1 explains that the UK Government sees a need for significant amounts of new large scale energy infrastructure to meet its energy objectives and why the UK Government considers that the need for such infrastructure is urgent.

6.3.7 The Overarching NPS for Energy EN-1 goes on to stress, through paragraph 4.2.4, that "there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure." Low carbon infrastructure includes solar electricity generation that does not involve fossil fuel combustion.

6.3.8 Part 3.3 of EN-1 identifies the need for nationally significant energy infrastructure to address energy security objectives and carbon reduction requirements, replace closing generating capacity, and support an increase in renewables supply. The assessment principles (part 4) and generic impacts (part 5) provide a framework of considerations across energy technologies.

National Policy Statement for Renewable Energy Infrastructure (EN-3)

6.3.9 EN-3 together with EN-1 provides the primary basis for decisions on renewable energy NSIPs.

6.3.10 The importance of the generation of electricity from renewable sources is stated in Paragraph 1.1.2 of EN-3:

"*Electricity generation from renewable sources of energy is an essential element of the transition to net zero and meeting our statutory targets for the sixth carbon budget (CB6). Our analysis suggests that demand for electricity is likely to increase significantly over the coming years and could more than double by 2050"*.

6.3.11 EN-3 provides a framework for assessment and technology-specific information for specified renewable energy technologies. Solar PV is included in EN-3 under section 2.10, which includes relevant information on the technology to inform assessment and decision-making.

National Policy Statement for Electricity Networks Infrastructure (EN-5)

6.3.12 The NPS for Electricity Networks Infrastructure (EN-5) is the primary basis for decisions on transmission and distribution system NSIPs and associated infrastructure. EN-5's relevance to the proposed Development is limited to the grid connection. EN-1 paragraph 4.11.4 on grid connection refers to EN-5 for further guidance on relevant considerations, including the impact of electromagnetic fields (EMFs).

6.4 National Planning Policy Framework

6.4.1 The National Planning Policy Framework was revised in response to the Proposed reforms to the National Planning Policy Framework and other changes to the Planning system consultation on 12 December 2024 and sets out the government's planning policies for England and how these are expected to be applied.

6.4.2 This version of the National Planning Policy Framework was amended on 7 February 2025 to correct cross-references from footnotes 7 and 8, and amend the end of the first sentence of paragraph 155 to make its intent clear.. Paragraph 5 of the NPPF confirms that it does not contain specific policies for NSIPs but that the NPPF may be a relevant matter in decision making. Whilst not specifically addressing NSIPs, the NPPF does set out its objectives to achieve sustainable development by pursuing economic, social and environmental objectives in development.

6.5 Local Planning Policy

6.5.1 The Proposed Development lies within the five administrative areas of Nottinghamshire County Council, Lincolnshire County Council, Newark and Sherwood District Council, West Lindsey District Council and Bassetlaw District Council. Therefore, the local planning policies relevant to the Proposed Development comprise of the following:

Nottinghamshire County Council

- Nottinghamshire Minerals Local Plan (Adopted March 2021)

Lincolnshire County Council

- The Lincolnshire Minerals and Waste Plan (Core Strategy and Development Management Policies adopted 2016 and Site Locations adopted 2017)
- Lincolnshire County Council Green Masterplan 2020 - 2025 (adopted 2020)
- Joint Lincolnshire Flood Risk and Water Management Strategy 2019-2050
- Local Transport Plan 5

- Lincolnshire County Council Highway and Flood Authority, Development Road and Sustainable Drainage Specification and Construction March 2021

Newark and Sherwood District Council

- Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy (Adopted March 2019)
- Newark and Sherwood Local Development Framework Core Strategy & Allocations, Development Plan Document (Adopted July 2013)

West Lindsey District Council

- Central Lincolnshire Local Plan (Adopted April 2023)

Bassetlaw District Council

- Bassetlaw Local Plan 2020-2038 (Adopted May 2024)

Emerging Local Planning Policy

6.5.2 LCC is preparing a new Minerals and Waste Plan. LCC invited interested parties to share their views on their preferred approach between July and September 2024.

6.5.3 NCC is preparing a revised Joint Waste Local Plan (incorporating review of Waste Core Strategy 2013) prepared with Nottingham City Council. The revised plan is expected to be adopted in March 2025.

6.5.4 NSDC is completing a review of the Amended Allocations & Development Management DPD. The Draft Amended Allocations & Development Management DPD was submitted to the SoS on the 18th January 2024 and was examined in public in November. However, the outcome of the examination is not yet published and whilst the plan is at an advanced stage of preparation, there are unresolved objections to amended versions of the above policies emerging through that process. Therefore, the level of weight which those proposed new policies can be afforded is currently limited. As such, the application has been assessed in-line with policies from the adopted Development Plan.

6.5.5 Paragraphs 4.1.12 - 15 of EN-1 confirm that the SoS may consider development plan documents both important and relevant to their decision-making. Notwithstanding this, EN-1 confirms that the NPSs constitute the primary policy documents and would take precedence in the event of a conflict between the NPSs and other matters, given the national significance of the infrastructure.

6.6 Other Policy and Legislation

The Climate Change Act 2008

6.6.1 The Climate Change Act set up a framework for the UK to achieve its long-term goals of reducing greenhouse gas emissions and to ensure steps are taken towards adapting to the impact of Climate Change. The Act committed the UK to reducing its greenhouse gas emissions by at least 90% by 2050 when compared with 1990 levels.

The Climate Change Act 2008 (2050 Target Amendment) Order 2019

6.6.2 In June 2019, legislation was passed to amend the Climate Change Act to set a new ambitious target requiring the UK to bring all greenhouse gas emissions to net zero (i.e. 100% reduction by 2050, compared with the previous target of at least 80% reduction from 1990 levels.

A Green Future: Our 25-Year Plan to Improve the Environment

6.6.3 The 25-Year Environmental Plan published in 2018 sets out the Government's 25-Year plan to improve the environment within a generation. It aims to deliver cleaner air and water in our cities and rural landscapes, protect threatened species, and provide richer wildlife habitats. It calls for an approach to agriculture, forestry, land use and fishing that puts the environment first.

6.6.4 It sets out 10 goals which include the achievement of and management of pressure by providing: clean air, clean and plentiful water, thriving plants and wildlife, reduced risk of harm from environmental hazards like flooding and drought; the more sustainable and efficient use of resources from nature; enhanced beauty; heritage and engagement with the natural environment; mitigation and adaption to climate change; minimisation of waste; management of exposure to chemicals; and enhanced biosecurity.

Net Zero Strategy: Build Back Greener

6.6.5 The Net Zero Strategy, published by the Government in October 2021, builds on the Government's commitments made in the Energy White Paper (2020) and sets out the long-term strategy, policy and proposals to keep the UK on track for future carbon budgets and sets the vision for a decarbonised economy by 2050. Key policies in the Strategy related to UK power generation include:

"*By 2035 the UK will be powered entirely by clean electricity, subject to security of supply; […] 40 GW of offshore wind by 2030, with more onshore, solar and other renewables - with a new approach to onshore and offshore electricity networks to incorporate new local carbon generation and demand in the most efficient manner that takes account of the needs of local communities […]*"

Net Zero: Opportunities for the Power Sector

6.6.6 In June 2019, the Government raised the UK's ambition on tackling climate change by legislating for a net-zero greenhouse gas emissions target for the whole economy by 2050. Decarbonising the power sector is integral to achieving this goal and requires major investment in proven technologies, such as solar, which are supported by planning policy at local and national levels.

6.6.7 The National Infrastructure Commission (NIC), the official advisor to the Government on infrastructure, has subsequently produced a report, 'NetZero: Opportunities for the Power Sector, in March 2020, which sets out the infrastructure required in order to meet the 2050 target, including the amount of new renewable energy development that would need to be deployed. Importantly, the NIC recommends that the generation mix is up to around 90% renewables. The report recommends that across all scenarios, significant solar, onshore wind, and offshore wind, with between 129-237 GW of renewable capacity, is in operation by 2050, including:

- 56-121 GW of Solar;
- 18-27 GW of onshore wind; and
- 54-86 GW of offshore wind.

6.6.8 The above requires an increase in installed capacity, including up to nine times more solar than is currently installed in the UK, which is presently around 14.1GW according to the Solar Photovoltaics deployment, August 2022 published by the Department for Business, Energy, & Industrial Strategy (BEIS).

6.6.9 Although the above figures are high-level, they demonstrate the amount of new infrastructure that is required. The scale of this need is such that it must be shared throughout the UK and in recognition that climate change is both a national and global issue.

National Infrastructure Strategy

6.6.10 The National Infrastructure Strategy (NIS) published in November 2020 sets out plans to transform UK infrastructure, with one of the aims being to put the UK on the path to meetings its net zero emissions target by 2050. The NIS acknowledges that the UK's commitment to achieving net zero emissions by 2050 will require profound changes that will provide huge opportunities for the UK to build back better. The NIS identifies that to deliver net zero, the share of generation from renewables needs to dramatically increase, and notes that greater generation capacity will need to come from onshore wind and solar. To support this, the government has included solar in the 2021/22 Contracts for Difference Allocation Round (AR4) to help *"deliver a diverse generation mix at low cost"* and to realise *"the rate and scale of new projects needed in the near-term to support decarbonisation of the power sector and meet the Net Zero commitment"* while providing other benefits such as diversity of supply through different resource

requirements and a geographical separation from other significant renewable technologies.

Environment Act 2021

6.6.11 The Environment Act 2021 makes provisions about targets, plans and policies for improving the natural environment. Schedule 15 of the Environment Act 2021 explains biodiversity net gain in nationally significant infrastructure projects. Although these provisions are not yet in force, it is expected that they will come into force later in 2025 at which point they will lead to an imposition of a requirement for the *"biodiversity value attributable to the development [to] exceed the pre-development biodiversity value of the on-site habitat by at least 10%".*

British Energy Security Strategy

6.6.12 In April 2022, the Government published the British Energy Security Strategy, which demonstrates the need for secure, clean and affordable British energy for the long term. This states that the Government will be supportive of the effective use of land by encouraging large-scale projects to be located on previously developed or lower-value land, where possible, and to ensure projects are designed to avoid, mitigate, and, where necessary, compensate for the impacts of using greenfield sites. The Government will also support solar that is co-located with other functions (for example, agriculture, onshore wind generation, or storage) to maximise the efficiency of land use.

Powering Up Britain (March 2023)

6.6.13 Powering up Britain sets out the government's plan to enhance the UK's energy security, seize economic opportunities in the transition and deliver on net zero commitments. The paper is focused on the transition between UK oil and gas to renewable energy sources. In order to meet its goal of quintupling its solar power by 2035, the paper states, regarding large-scale solar development. "Government seeks large scale solar deployment across the UK, looking for development mainly on brownfield, industrial and low/medium grade agricultural land. The Government will therefore not be making changes to categories of agricultural land in ways that might constrain solar deployment".

Clean Power 2030 Action Plan (December 2024)

6.6.14 The Clean Power 2030 Action Plan sets out a pathway to a clean power system by 2030. The action plan will herald a new era of clean energy independence and tackle three major challenges: the need for a secure and affordable energy supply, the creation of essential new energy industries, supported by skilled workers in their thousands, the need to reduce greenhouse gas emissions and limit our contribution to the damaging effects of climate change.

7. Engagement

7.1.1 The Applicant has undertaken a range of engagement activities over the course of developing the Proposed Development. Further information on this is set out in the submitted **Consultation Report [EN010159/APP/5.1]**.

7.1.2 However, as a result of positive engagement and consultation exercises a number of changes to the Proposed Development have been made in response to requests from consultees and stakeholders. Some of these changes, as further set out within the **Consultation Report [EN010159/APP/5.1]**, and secured in the **Works Plans [EN010159/APP/2.3] and Outline Design Parameter [EN010159/APP/5.9]** include:

- Significant reduction of panels around the villages of North and South Clifton, to the extent that there is now very limited solar located on the western side of the A1133 and alongside the eastern edge of the River Trent.
- Substantial reduction of panels around Fledborough village.
- Increased the setback of the Proposed Development from Ragnall village.

7.1.3 Following a number of visits to residents in close proximity to the Site, changes have been made to the Proposed Development to set back panels from a number of residential properties.

7.1.4 As part of this in-depth engagement, the Applicant is working towards the preparation of Statements of Common Ground (SoCGs). The SoCGs will adopt a standard format to ensure consistency in the approach taken to document matters both agreed, ongoing discussion and not agreed. This approach has been discussed with all relevant parties, including the Local Planning Authorities.

7.1.5 There are no SoCGs that are being submitted with the Application, but there are a number that are being progressed and will be submitted once examination has begun. The SoCGs in the process of being drafted and discussed with the relevant stakeholders and statutory undertakers include:

- Lincolnshire County Council;
- Nottingham County Council;
- Newark and Sherwood District Council;
- Bassetlaw District Council;
- West Lindsey District Council;

- Environment Agency;
- Natural England; and
- Historic England.

7.1.6 At the time of their submission, the SoCGs will be supplemented by a Statement of Commonality. The Statement of Commonality will set out the areas of agreement and disagreement with the various stakeholders. This document would be a live document that continues to be updated over the course of the examination.

8. Planning Assessment

8.1 Overview

8.1.1 This section considers how the Proposed Development complies with relevant policy. Emphasis is placed on the Energy NPSs, which are the relevant NPSs for determination of the DCO Application and so are the primary policy basis for the SoS's decision. However, reference has been made to the NPPF and local planning policies where they could form important and relevant considerations to the SoS's decision.

8.1.2 This section assesses the Proposed Development against Part 4 of EN-1 (Assessment Principles), Part 2.10 of EN-3 (solar photovoltaic generation) and the relevant parts of EN-5. It provides a summary of the Proposed Development's compliance with the key relevant policy(s) on a topic-by-topic basis. This Planning Statement should, therefore, be read alongside the **Policy Compliance Document [EN010159/APP/5.6]**, the purpose of which is to provide a comprehensive assessment of the Proposed Development's compliance against each relevant national and local planning policy.

Assessment Principles

8.1.3 Paragraph 4.1.3 of EN-1 states that, given the level and urgency of the need for infrastructure projects of the types covered by the NPSs, the SoS will start with a presumption in favour of granting consent for applications for energy NSIPs, and that presumption applies unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused.

8.1.4 When weighing the adverse impacts against the benefits of energy NSIPs, paragraph 4.1.5 of EN-1 states that the SoS should take into account both the potential benefits, including the contribution to meeting the need for energy infrastructure, job creation, ecological enhancements, and any long-term or wider benefits; any potential adverse impacts, including on the environment, and any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce, mitigate, or compensate for any adverse impacts. Paragraph 4.3.8 advises that any reference to the terms effects, impacts or benefits in EN-1 should be understood to mean likely significant effects, benefits or impacts.

8.1.5 Paragraph 4.1.6 of EN-1 brings to the attention of the SoS that environmental, social, and economic benefits and adverse impacts both nationally, regionally and locally should be taken into account when determining the application.

8.1.6 In terms of benefits of the Proposed Development, these are further explored within the relevant ES Chapters alongside specifically in the above section of 4.3.

8.1.7 Paragraph 4.1.7 of EN-1 sets out that the technology specific NPSs require applicants to mitigate particular impacts as far as possible but should residual adverse effects remain, the SoS should weigh those against the benefits of the Proposed Development. Critically, it goes on to state that for CNP projects (which includes solar and BESS projects) *"it is likely that the need case will outweigh the residual effects in all but the most exceptional cases".* Further detail on compliance with the policies for CNP infrastructure is provided in Section 9 below and within the **Policy Compliance Document [EN010159/APP/5.6]**.

8.1.8 Paragraph 4.1.11 confirms that the suite of Energy NPSs have taken into account the NPPF and Planning Practice Guidance (PPG) **[Ref 15]**. Paragraph 1.1.2 of EN-1 confirms that the NPS is the primary policy document and would take precedence in the event of a conflict between it and other policy documents that are important and relevant matters, given the national significance of the infrastructure.

8.1.9 Section 6.5 of this document sets out the local policy context for the proposed development and the **Policy Compliance Document [EN010159/APP/5.6]** provides an assessment of compliance of the Proposed Development with the NPPF and relevant local planning policy. The Applicant agrees with the list of relevant policies set out in the host authorities' individual responses to Statutory Consultation as set out within Table 7.6 of the **Consultation Report [EN010159/APP/5.1]**. All relevant policies are addressed in the **Policy Compliance Document [EN010159/APP/5.6].**

8.1.10 Paragraph 4.1.18 of EN-1 explains that the SoS may also decide to take into account any development consent obligations under section 106 of the Town and Country Planning Act as amended by section 174 of the Planning Act 2008 that the Applicant agrees with the local authorities. At this stage, no impacts have been identified which would be required to be addressed by financial contributions and therefore such an obligation would not meet the test of necessity in the Community Infrastructure Levy Regulations 2010 (as amended).

8.1.11 Paragraph 4.1.21 of EN-1 requires applicants to have considered both the financial and technical viability of the Proposed Development. For the Proposed Development, the Applicant has given due consideration to commercial and financial matters which have informed the decision to proceed with the Proposed Development. The **Funding Statement [EN010159/APP/4.2]** gives consideration to the proposed costs of the development and sets out how the Proposed Development may be funded as well as including details of the financial position of the Applicant.

8.1.12 Paragraph 4.1.19 of EN-1 emphasises the importance of early engagement with stakeholders of the Proposed Development. This process of engagement with both public regulators and statutory bodies, alongside those likely to have an interest in the application, is set out within the submitted **Consultation Report [EN010159/APP/5.1]**. In addition, Section 7 of this Planning Statement outlines the Applicant's key engagement undertaken to date.

Part 4.2 of EN-1: Critical national priority for low carbon infrastructure

8.1.13 Paragraph 4.2.2 explains that ensuring a smooth transition to abundant, low carbon energy generation will ensure the UK is energy independent, resilient and secure. It identifies the criticality of the deployment of *"new low carbon sources of energy at speed and scale"* in terms of our energy security and net zero ambitions.

8.1.14 Paragraph 4.2.4 is fundamental in highlighting the government's position on the criticality of the delivery of low carbon energy generation. It states that the government has *"concluded there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure".*

8.1.15 Paragraph 4.2.5 relates to definitions of low carbon infrastructure for the purposes of the CNP policy. It states that *"for electricity generation, all onshore and offshore generation that does not involve fossil fuel combustion"* is included as CNP. This confirms that NSIP scale solar PV development, such as the Proposed Development, is CNP. It also advises the infrastructure relating to the electricity grid is covered, including *"network reinforcement and upgrade works, and associated infrastructure such as substations".*

8.1.16 Paragraph 4.2.6 expands further on how low carbon energy infrastructure should be considered, and references earlier paragraphs in the NPS, namely 3.2.6 to 3.2.8 which confirm that applications for NSIPs covered by EN-1 should be assessed *"on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent".* Paragraph 3.2.7 goes on to state that the SoS has "*determined that substantial weight should be given to this need when considering applications for development consent".* Paragraph 3.2.8 further advises that there is no requirement on the SoS to consider separately the specific contribution of any individual project in satisfying the need established in EN-1.

8.1.17 Paragraph 4.2.7 advises that the CNP policy applies *"following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy"*. It points out that it is therefore relevant during SoS decision making and with particular reference to any residual impacts that have been identified and should be given consideration by the ExA when making its recommendation to the SoS.

8.1.18 Paragraphs 4.2.10 - 4.2.12 cover the applicant's assessment and require the applicant to show how their proposals meet the requirements of the NPS, applying the mitigation hierarchy and any other relevant legal requirements. As stated, applicants are required to *"apply the mitigation hierarchy and demonstrate that it has been applied"* and demonstrate that all *"residual impacts are those that cannot be avoided, reduced or mitigated"*. It further advises applicants to demonstrate, as far as possible, how residual effects may be compensated for to the extent that the relevant topic specific policy requires compensation.

8.1.19 Paragraph 4.2.15 refers to SoS decision making. It states that *"where residual non-HRA* [Habitats Regulations Assessment] *or non-MCZ* [Marine Conservation Zone]

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".

8.1.20 Section 4.2 of EN-1 is fundamental to the consideration of this Application. It applies the CNP designation to solar PV development and sets out the framework for decision making with the presumption strongly in favour of the development. This framework includes a responsibility on the Applicant to demonstrate how the mitigation hierarchy has been applied and that residual impacts should exist only when they have been subject to application of the hierarchy. Where such residual impacts exist following the application of the mitigation hierarchy, EN1 states that they will only outweigh need in the most exceptional of cases.

8.1.21 This section of the Planning Statement alongside relevant chapters from **ES Volume 2, Chapters 6 to 19 [EN010159/APP/6.6-6.19]** and the **Design Approach Document [EN010159/APP/5.8]** sets out how potential impacts are addressed including the measures taken to avoid, minimise and mitigate such impacts.

Part 4.2 of EN-1: Habitats and Species Regulations

8.1.22 Paragraph 4.2.19 of EN-1 states that, *"where, following Appropriate Assessment, CNP Infrastructure has residual adverse impacts on the integrity of sites forming part of the UK national site network, either alone or in combination with other plans or projects, the Secretary of State will consider making a derogation under the Habitats Regulations."*

8.1.23 Under the Conservation of Habitats and Species Regulations 2017, consideration should be given as to whether a project may have a significant effect on a protected site or any site to which the same degree of protection is applied as a matter of policy, either alone or in combination with other plans and projects. Applicants are required to supply such information as the 'competent authority' may reasonably require for the purposes of the assessment or to enable it to determine whether an Appropriate Assessment is required.

8.1.24 Paragraph 4.1.19 of EN-1 confirms that applicants should seek early engagement from the appropriate Statutory Nature Conservation Bodies (SNCB). The **Shadow Habitat Regulation Assessment [EN010159/APP/5.2]** submitted as part of this DCO Application set out at Stage 1 Screening that likely significant effects (alone or in-combination) could not be rules out and therefore further assessment was required. The subsequent Appropriate Assessment (Stage 2) concluded that, with the implementation of mitigation measures secured through the **Outline Construction Environmental Management Plan [EN010159/APP/7.4]**, there would be no adverse effects (alone or in combination) on the integrity of the SAC Site screened into the assessment, as a result of the Proposed Development.

Part 4.3 of EN-1: Environmental Effects/Considerations

8.1.25 Paragraphs 4.3.1 and 4.3.2 of EN-1 discuss the requirement that project proposals are required to be accompanied by an Environmental Statement (ES) describing the aspects of the environment likely to be significantly affected by the project, if the project is subject to the Infrastructure Planning (EIA) Regulations 2017. Paragraph 4.3.3 specifies the range of effects, their duration, and measures for avoiding or mitigating significant effects that must be considered at all project stages.

8.1.26 An ES has been submitted with this DCO Application for the Proposed Development. The scope of the submitted ES is in accordance with the **ES Volume 3, Scoping Opinion [EN010159/APP/6.23].** In accordance with EN-1, the ES has been structured to enable a clear understanding of the Proposed Development's construction, operational, and decommissioning phases. In addition, it has been prepared in accordance with the policy contained in paragraphs 4.3.1 and 4.3.4 of EN-1.

8.1.27 Paragraph 4.3.11 acknowledges that it may not be possible for all elements of an application to be settled in precise detail at the time of submission and that the Applicant should explain where details are yet be finalised.

8.1.28 Paragraph 4.3.12 goes on to state that where details are still to be finalised, the ES should assess likely worst-case environmental, social and economic effects of the Proposed Development. This is also known as the application of the 'Rochdale Envelope' approach, with further information of this set out within the Nationally Significant Infrastructure Projects – Advice Note Nine: Rochdale Envelope (2018).

8.1.29 **ES Volume 1, Chapter 5, Description of the Proposed Development [EN010159/APP/6.5]** sets out the Applicant's approach, which involves specifying parameter ranges; including details of the maximum and, where relevant, the minimum, size (footprint, width, and height relative to above ordnance datum (AOD)); technology, and; locations of the different elements of the Proposed Development, where flexibility needs to be retained

Part 4.3 of EN-1 and Part 2.3 of EN-3: Alternatives and Site Selection

8.1.30 **ES Volume 1, Chapter 4, Alternatives and Design Evolution [EN010159/APP/6.4]** sets out the Applicant's approach to alternatives. The **Site Selection Report** at Appendix 1 to this Planning Statement demonstrates a consideration of the relevant policy and its applicability to the site selection process that the Applicant has undertaken.

8.1.31 Paragraph 4.3.9 of EN-1 states that *"the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to a proposed development is in the first instance matter of law."* It goes on to state that *"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 acquisition and habitats sites".

8.1.32 Paragraph 4.3.15 of EN-1 advises that 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".*

8.1.33 Paragraphs 4.3.16 and 4.3.17 of EN-1 further note that: *"In some circumstances, the NPSs may impose a policy requirement to consider alternatives."* And that where *"there is a policy or legal requirement to consider alternatives, the applicant should describe the alternatives considered in compliance with these requirements."*

8.1.34 Paragraph 4.3.22 helps set the framework for decision making around alternatives and provides the key principles which should be considered when attributing weight:

- the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner; and
- only alternatives that can meet the objectives of the proposed development need to be considered.

8.1.35 Paragraph 4.3.23 of EN-1 advises the SoS should be guided by whether there is a *"reasonable prospect of the alternative delivering the same infrastructure capacity… in the same timescale as the proposed development".* Paragraph 4.3.24 goes on to recognise that the SoS "*should not refuse an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure".* The paragraph continues to say that the SoS should have regard to the possibility that *"all suitable sites for energy infrastructure of the proposed type may be needed by future proposals".* There are also specific circumstances where there is a requirement to consider alternatives. The circumstances relating to when they are required and the Applicant's response to these circumstances is set out, below:

- Paragraph 4.3.9 of EN-1 sets out that where a scheme would involve the compulsory acquisition of land or interests in land, reasonable alternatives must be considered. The DCO Application is seeking compulsory acquisition powers. Please see the **Statement of Reasons [EN010159/APP/4.1], ES Volume 1, Chapter 4, Alternatives and Design Considerations [EN010159/APP/6.4]** and **Appendix 1: Site Selection Report** to this Planning Statement regarding consideration of alternatives.

- Paragraph 5.2.7 of EN-1 sets out that where a scheme would be located near a sensitive receptor site for air quality, reasonable alternatives must be considered. The Proposed Development is not within an Air Quality Management Area (AQMA). The nearest AQMA to the Site was declared in 2001 for exceedances of the annual and 1-hour mean NO2 objectives and is located in Lincoln city centre, approximately 11.1 km to the east of the eastern Site boundary. The AQMA is outside of the study area and the Proposed Development is therefore not expected to affect air quality within the AQMA.

- Paragraph 5.4.42 of EN-1 sets out that where a scheme would lead to significant harm to biodiversity and geological conservation interests, reasonable alternatives must be considered. The Proposed Development would not likely give rise to significant harm on such receptors, as reported in **ES Volume 2, Chapter 6, Biodiversity [EN010159/APP/6.6], Chapter 7, Hydrology and Hydrogeology [EN010159/APP/6.7],** and **Chapter 8, Land and Soils [EN010159/APP/6.8].**

- Paragraph 5.4.6 of EN-1 sets out that where a scheme would result in an adverse effect on the integrity of a European site that cannot be avoided, reasonable alternatives must be considered. A **Shadow Habitat Regulation Assessment [EN010159/APP/5.2]** has been submitted alongside the DCO Application which confirms the Proposed Development would not result in an adverse impact on the integrity of a European Site, therefore there is no requirement to consider alternatives under this regime.

  Paragraph 5.8.23 of EN-1 sets out that where a scheme would be located within, or partially within, Flood Zone 2 or Flood Zone 3, reasonable alternatives must be considered. In this case the Sequential Test should be undertaken. If following application of the Sequential Test, it is not possible for the project to be located in areas of lower flood risk the Exception Test can be applied, which provides a method of allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available. With regard to applying the Sequential Test, paragraph 5.8.23 sets out that consideration of alternative sites should take account of the policy on alternatives described in section 4.3 of EN-1. As shown in **ES Volume 3, Figure 3-4 [EN010159/APP/6.20]**, approximately 56% of the Site is within Flood Zones 2 and 3, indicating a medium and high probability of flooding from tidal and fluvial sources. **ES Volume 3, Appendix 7.2: Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** and Section 8.3, below in this Planning Statement advises how the Sequential Test has been met.

  Paragraph 5.10.32 of EN-1 sets out that where a development would be located within a National Park, the Broads or an AONB (now National Landscape), reasonable alternatives must be considered. The Proposed Development is not located within any of these designations, therefore no further consideration of alternatives in this regard is required.

8.1.36 Policy 4.3.24 of EN- 1 states that the policy is clear that work should be undertaken on a proportionate basis and any alternative would need to be a reasonable alternative and so it would be expected to deliver the same capacity in the same timeframes. Indeed, there is acknowledgement that other sites may exist which potentially have lesser impacts than that proposed but that they may equally be required for further energy infrastructure in the future. This goes to the core of the approach to planning in England and Wales, which is that applications should be judged on their own merits.

8.1.37 In terms of legislative requirements on alternatives, Regulation 14(2)(d) of the EIA Regulations 2017 states that an ES should "*include a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment*."

8.1.38 The Applicant has considered reasonable alternatives that could realistically achieve the objectives for the Proposed Development. This is set out in **ES Volume 1, Chapter 4: Alternatives and Design Considerations [EN010159/APP/6.4].** A **Site Selection Report** has also been prepared and is included in **Appendix 1** to this Planning Statement. These reports should also be read in conjunction with the **Statement of Need [EN010159/APP/7.1].**

8.1.39 These aforementioned reports conclude there were no alternative technologies or sites studied by the Applicant that could deliver the Design Principles. From an alternative technology perspective, the following conclusions were drawn:

- Alternative types of low-carbon forms of electricity generation for utilising the proposed National Grid High Marnham Substation connection capacity have been considered in the Site Selection Report. However, notwithstanding this, it is not considered that the Order limits would be suitable for other forms of renewable generation at the same scale of the Proposed Development within the Order limits due to the following:
    - The grid connection availability being more suitable for a Solar Farm development;
    - The size of the site being suitable for solar given a set amount of land is required to deliver the most appropriate amount of clean power; and
    - Solar power is the most efficient renewable source as it is the least impactful.
- Tidal power, offshore wind, and hydroelectric storage were not considered possible due to the location of High Marnham Substation approximately 70km from the coast, and within an area of low, flat topography; and

- The Order limits is not considered suitable for onshore wind due to the low wind yield relative to other parts of the UK, coupled with the proximity to residential dwellings which would be subject to risks associated with shadow flicker and wind turbine noise. It is not expected that the Order limits would have been able to host an economically viable and successful onshore wind farm without causing greater environmental consequences than the Proposed Development. To produce the same predicted electricity output as the Proposed Development, an onshore wind farm would require approximately 150km^2 of land, compared to the required approximate 25km^2 for solar farms of similar output.

Part 4.4 of EN-1 and Part 4.3 of the EN-3: Health

8.1.40 Paragraph 4.4.1 of EN-1 highlights that energy infrastructure has the potential to impact the health and well-being of the population. EN-1 goes on to state that where development has the potential to affect human beings, the ES should assess those effects for each element of the project, identifying any adverse health impacts and measures to avoid, reduce, or compensate for the impacts as appropriate.

8.1.41 Paragraph 4.4.7 of EN-1 advises that the aspects of energy infrastructure which are *"most likely to have a significantly detrimental impact on health are subject to separate regulation (for example air pollution) which will constitute suitable 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*". Paragraph 4.4.8 continues to advise that not all potential sources of health impacts will be mitigated in such a way and the "*SoS may want to take account of health concerns when setting requirements relating to a range of impacts such as noise".*

8.1.42 Health is assessed as an individual topic in **ES Volume 2, Chapter 16, Human Health [EN010159/APP/6.15].** Health is further assessed across **ES Volume 2, Chapter 7, Hydrology and Hydrogeology [EN010159/APP/6.7], Chapter 8, Land and Soils [EN010159/APP/6.8], Chapter 11, Landscape and Visual [EN010159/APP/6.11], Chapter 12, Transport and Access [EN010159/APP/6.12], and Chapter 17, Socio-Economics [EN010159/APP/6.17].**

8.1.43 In regard to health impacts **ES Volume 2, Chapter 13, Air Quality [EN010159/APP/6.13]**, reports on potential impacts on human health in relation to dust and particulate matter emissions during both the construction and decommissioning phases, including the operation of equipment. The chapter concludes there is negligible risk of impact and therefore no significant residual effects are expected. In terms of human health impacts, as a result of road traffic exhaust emissions during construction, operation and decommissioning, the ES again reports that, following the implementation of additional mitigation, residual impacts are not significant.

8.1.44 In regard to Landscape and Visual health related impacts, **ES Volume 2, Chapter 11, Landscape and Visual [EN010159/APP/6.11],** addresses potential impacts during construction and decommissioning on health and wellbeing of residents and users of the PRoW and minor road network. **Table 12.7** within **ES Volume 2, Chapter 11, Landscape and Visual [EN010159/APP/6.11]** sets out a summary of the likely significant environmental effects considered.

8.1.45 **ES Volume 2, Chapter 15, Noise and Vibration [EN010159/APP/6.15]** addresses potential impacts on human health in relation to residents' wellbeing during the construction and decommissioning phases. This chapter considers there to be no adverse noise and vibration effects that may adversely affect residents' wellbeing to a significant level.

8.1.46 **ES Volume 2, Chapter 17, Socio-Economics [EN010159/APP/6.17]** reports on potential impacts to human health in relation to both mental and physical health and wellbeing to users of the proposed permissive paths during the operational phase. This chapter concludes there is likely to be a direct, permanent, long term slight beneficial residual effect on users of public rights of way, following the implementation of additional mitigation measures, which is considered to be not significant.

8.1.47 In regard to traffic and transport related impacts, **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12]** identifies potential impacts during construction and decommissioning relating to health and wellbeing caused by disruption to amenity or safety (e.g. related to fear and intimidation on and by road users). It also identifies potential impacts on health and wellbeing where community links and access to facilities and employment may be materially changed (i.e. via severance of communities, driver and passenger delay). On both of these impacts, the **oCTMP [EN010159/APP/7.9]** provides mitigation to address potential disruption and implications on the wider transport network, for example by way of specific construction traffic routing. **ES Volume 2, Chapter 12 Transport and Access [EN010159/APP/6.12]** identifies that there are no significant residual health related impacts.

8.1.48 The **Glint and Glare Assessment [EN010159/APP/7.16]** reports on potential impacts to human health caused by nuisance to people living in nearby residential properties during the operation (including maintenance) phase. The report concludes people living in nearby residential properties are not anticipated to experience significant adverse glint and glare effects. This is principally because the potentially affected residential properties are located a sufficient distance away from the nearest reflective source (in this instance these are the solar panels) as well as because of the limited duration that the sun is in position in the sky where reflections on those properties is possible.

8.1.49 The above demonstrates that health impacts have been considered across the Proposed Development and, with the application of suitable mitigation measures, are not significant. It is therefore considered that, in terms of paragraph 4.4.7 there is no reason that health concerns associated with the Proposed Development

present a reason for refusal. In accordance with paragraph 4.4.8 of EN-1, that there is no evidence to suggest that additional requirements relating to health need to be added to the DCO if the application for development consent be granted. It is therefore considered that the Proposed Development complies with the aims and intentions of the EN-1 policy requirements in regard to health.

Part 4.6 of the EN-1: Environmental and Biodiversity Net Gain

8.1.50 Paragraph 4.6.1 of EN-1 outlines that "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".

8.1.51 Paragraph 4.6.2 explains how BNG is an essential component of environmental net gain (although it is not yet a mandatory requirement for NSIPs in England). Projects in England are encouraged to consider and seek to incorporate improvements in natural capital, ecosystem services and the benefits they deliver when planning how to deliver biodiversity net gain.

8.1.52 Paragraph 4.6.3 requires that the SoS 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) should be limited"*.

8.1.53 One of the Design Principles, as set out in the **Design Approach Document [EN010159/APP/5.8],** requires the Proposed Development to protect and enhance the physical, natural and historic local environment. The **Outline Landscape Environmental Management Plan [EN010159/APP/7.7]** carries this commitment forward to detailed design stage and the delivery stage.

8.1.54 Appendix 6.11 of the ES notes that the Proposed Development will result n an on-site net change of:

- 3440.43 habitat units, an increase in 113.17%
- 353.22 hedgerow units, an increase of 92.49%
- 77.60 watercourse units, an increase of 57.75%

8.1.55 The summary above confirms that the Proposed Development is compliant with current policy requirements. As set out in Section 4.6 of EN-1, a mandatory legislative requirement for DCO projects to deliver a minimum 10% BNG is expected to come into force later in 2025.

8.1.56 Paragraph 4.6.15 of EN-1 advises that 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 the project's design (including any relevant operational aspects). Opportunities to deliver wider environmental gains are outlined by topic in the relevant sections of the **ES Volume 2 [EN010159/APP/6.6 – 6.19],** the **oLEMP [EN010159/APP/7.7]** and **Design Approach Document [EN010159/APP/5.8].**

Part 4.7 of EN-1 and 2.5 of EN-3: Criteria for "Good Design" for Energy Infrastructure

8.1.57 Paragraph 4.7.2 of EN-1 states, *"Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impact 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.*"

8.1.58 Paragraph 4.7.4 of EN-1 states that design principles should be established during the early stages of the project lifecycle. Footnote 122 of EN-1 states that *"Design principles should take into account any national guidance on infrastructure design, this could include for example the Design Principles for National Infrastructure published by the National Infrastructure Commission*".

8.1.59 Paragraph 4.7.6 of EN-1 states that applicants may have very limited choice in the physical appearance of some energy infrastructure. However, given the importance the Planning Act 2008 places on good design and sustainability, the SoS needs to ensure that energy infrastructure development is as attractive, durable, and adaptable as possible. The paragraph also states that applicants should seek to embed opportunities for nature-inclusive design within the design process. This flows into paragraph 4.7.7 which requires applicants to demonstrate in their application how the design process was conducted and how the proposed design evolved.

8.1.60 Paragraph 4.7.10 of EN-1 states that given the importance the PA 2008 places on good design and sustainability, the SoS needs to be satisfied 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.

8.1.61 Paragraphs 2.5.1 to 2.5.2 of EN-3 refer to part 4.7 of EN-1 and emphasise that proposals for renewable energy infrastructure should demonstrate good design with respect to landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.

8.1.62 Regarding solar development itself, paragraph 2.10.60 of EN-3 notes that applicants should consider several factors when designing and laying out the

proposed sites. These include proximity to available grid capacity to accommodate the scale of generation, orientation, topography, previous land use, and the ability to mitigate environmental impacts and flood risk.

8.1.63 Further detail is set out in Section 5 of this Planning Statement and in the **Design Approach Document [EN010159/APP/5.8]** which set out in detail the Applicant's actions which demonstrate compliance with the design related policy within both EN-1 and EN-3.

Part 4.11 of EN-1 and 2.10 of EN-3: Network Connection

8.1.64 Paragraph 4.11.1 of EN-1 notes that the grid connection point of a generating station to the electricity network is an important consideration for applicants.

8.1.65 Paragraph 2.10.21 of EN-3 notes that applicants should consider issues relating to network connection in Section 4.11 of EN-1 and within EN-5. In particular, and where appropriate, applicants should proceed in a manner consistent with the regulatory regime for offshore transmission networks.

8.1.66 The **Grid Connection Statement [EN010159/APP/7.2]** submitted with the DCO Application confirms that the Applicant has secured a connection to the proposed National Grid High Marnham Substation which would allow the export and import up to 740MW of electricity. Paragraph 4.11.4 of EN-1 states "*that transmission infrastructure, and related network reinforcement and upgrade work, associated with low carbon infrastructure is considered CNP infrastructure*".

8.1.67 Paragraph 4.11.7 of EN-1 encourages applications for generating stations and related infrastructure to be submitted in tandem or prepared in an integrated way. Paragraph 4.11.8 advises that where the situation arises that applications cannot be coordinated the Applicant should include information on the other elements and confirm there are no obvious reasons why other elements may be refused.

8.1.68 National Grid Electricity Transmission (NGET) has confirmed they will seek consent for the proposed High Marnham Substation by way of an application under the Town and Country Planning Act (1990), partly because the new substation is also proposed to provide connection to other energy development. National Grid has confirmed that it intends to submit an application for the proposed High Marnham Substation in early 2025. On this basis, the Proposed Development maintains sufficient flexibility to allow for any changes in the design of the Substation up to and throughout the consideration of National Grid's application.

8.1.69 Paragraph 4.11.4 of EN-1 states "*that transmission infrastructure, and related network reinforcement and upgrade work, associated with low carbon infrastructure is considered CNP infrastructure*". Therefore, although not the primary policy tool for determining any future High Marnham Substation application under the Town and Country Planning Act (1990), paragraph 1.2.1 of EN-1

confirms that the NPS may be a material consideration and substantial weight may be attributed to the CNP policy during decision making.

8.1.70 Paragraph 4.11.12 advises that the SoS "*should be satisfied that appropriate network connections are/will be in place for a given project regardless of whether one or multiple (linked) applications are submitted".* The Applicant has a contractual grid connection offer at the proposed High Marnham Substation which, although it currently does not have consent, is at a mature stage of development with an application anticipated to be submitted in early 2025. The Applicant considers that the principle of the proposed High Marnham Substation development is strongly supported in and pending outcomes of other relevant assessment works considers there to be no obvious impediments to the grant of planning consent.

Part 4.12 of EN-1: Pollution Control and Other Environmental Regulatory Regimes

8.1.71 Paragraph 4.12.1 of EN-1 states that "*discharges or emissions from a proposed project which lead to other direct or indirect impacts on terrestrial, freshwater, marine, onshore, and offshore environments, or which include noise and vibration may be subject to separate regulation under the pollution control framework or other consenting and licencing regimes*".

8.1.72 Paragraph 4.12.9 of EN-1 advises that the SoS should focus on whether the development itself is an acceptable use of the land and on the impact of that use rather than the control of processes, emissions, and discharges themselves. This continues into paragraph 4.12.10, which notes that the SoS should work on the assumption that the relevant pollution control regime and other environmental regulatory regimes will be properly applied and enforced by the relevant regulator. The SoS should act to complement but not seek to duplicate them.

8.1.73 The DCO Application is accompanied by a document setting out the **Details of other consents and licences [EN010159/APP/5.4].** This document outlines the other environmental consents, permits and licences required to facilitate the Proposed Development. The Applicant acknowledges the preference set out in paragraph 4.12.8 of EN-1 for applicants to submit applications for other necessary consents at the same time as seeking development consent from the SoS; however, the level of detail required to obtain such permits and licenses is not available at this stage. The details of other consents and licenses document sets out the status of discussions with relevant regulators with, notably, the vast majority of engagement and subsequent applications expected to be undertaken by the relevant contractor at detailed design stage when the relevant information becomes available, should a DCO consent be granted.

8.1.74 The Proposed Development's construction phase environmental impacts would be managed through the implementation of a Construction Environmental Management Plan (CEMP). An **oCEMP [EN010159/APP/7.4]**, submitted with the DCO Application, sets out a series of measures, based on best-practice guidance, to control the environmental effects of construction of the Proposed Development.

These measures are expected to form an important part of efforts to control construction phase impacts.

8.1.75 Ongoing impacts arising from the operational phase of the Proposed Development are assessed to be to be few and minor. However, any arising impacts will be controlled through a detailed Operational Environmental Management Plan that would be prepared in accordance with the **oOEMP [EN010159/APP/7.5],** should DCO consent be granted. Similarly, a Decommissioning Environmental Management Plan prepared in accordance with **oDEMP (inc restoration) [EN010159/APP/7.16]** would control environmental effects as identified in the ES during the decommissioning of the Proposed Development.

8.1.76 In terms of paragraph 4.12.16 of EN-1, based on the above, the Applicant considers there should be no reason for the SoS to be of the view that any operational pollution permits, licenses and/or other consents will not be granted.

Part 4.13 of EN-1: Safety

8.1.77 Paragraph 4.13.1 of EN-1 explains that the Health and Safety Executive (HSE) is the independent regulator responsible for enforcing a range of occupational health and safety legislation, some of which is relevant to the construction, operation and decommissioning of energy infrastructure. Paragraph 4.13.3 confirms that some energy infrastructure will be subject to the Control of Major Accident Hazards (COMAH) Regulations 2015. As per Section 3 of these Regulations, Solar and BESS development is not applicable to the regime and therefore no further response is required. As the Proposed Development is not subject of the COMAH Regulations, paragraphs 4.13.7 and 4.13.8 of EN-1 are not engaged.

8.1.78 In regard to other safety matters, the DCO Application is accompanied by an **Outline Battery Safety Management Plan (oBSMP) [EN010159/APP/7.14]**, which sets out the key fire safety provisions for the BESS including measures to reduce fire risk and fire protection measures.

Part 4.14 of EN-1: Hazardous Substances

8.1.79 Paragraph 4.14.1, EN-1 states that all establishments wishing to hold stocks of certain hazardous substances above a certain threshold require Hazardous Substances Consent (HSC).

8.1.80 There is no requirement for storage or use of hazardous substances at or above Controlled Quantities for the Proposed Development, and HSC is not required. Pollution prevention and control measures with management prescriptions set out in the **oCEMP [EN010159/APP/7.4],** which is secured by requirement in the **Draft DCO [EN010159/APP/3.1].**

Part 4.15 of EN-1: Common Law Nuisance and Statutory Nuisance

8.1.81 Paragraph 4.15.5 requires that at the application stage, "*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 consent*". Paragraph 4.15.6 of EN-1 continues to advise that at the application stage of an energy NSIP, it is important that the SoS consider possible sources of nuisance under Section 79(1) of the Environmental Protection Act 1990 and how they may be mitigated or limited so that appropriate requirements can be included in any subsequent DCO.

8.1.82 The Applicant has prepared and submitted a **Statutory Nuisance Statement [EN010159/APP/5.3]** as is required under APFP Regulation 5(2)(f) and paragraph 4.15.5 of EN-1. Measures including obtaining section 61 consent for control of noise on construction sites, which would include agreed construction noise limits for nearby noise-sensitive receptors, are set out in the **oCEMP [EN010159/APP/7.4]** and **oDEMP (including restoration) [EN010159/APP/7.6]** and are secured through requirements 12 and 19, respectively, in the draft DCO.

8.1.83 The Applicant, at Article 7 of the **Draft DCO [EN010159/APP/3.1],** deals with defence to proceedings in respect of statutory nuisance and provides that no person is able to bring statutory nuisance proceedings under the Environmental Protection Act 1990 in respect of noise, if the noise is created in the course of carrying out construction, maintenance or decommissioning of the authorised development and for which notice has been given under section 60 or consent obtained under section 61(9) of the Control of Pollution Act 1974 or which cannot be reasonably avoided as a consequence of the authorised development. This approach is precedented in all made solar DCOs to date, including the Gate Burton Energy Park Order 2024, the Mallard Pass Solar Farm Order 2024, the Sunnica Energy Farm Order 2024, West Burton Solar Project Order 2025 and Heckington Fen Solar Park Order 2025.

Part 4.16 of EN-1 and Part 2.10 of EN-3: Security Considerations

8.1.84 Paragraph 4.16.1 of EN-1 explains that national security considerations apply across all national infrastructure sectors. Paragraph 4.16.2 of EN-1 notes that DESNZ works closely with Government security agencies, including the Centre for the Protection of National Infrastructure (CPNI) and the National Cyber Security Centre (NCSC), to provide advice to the most critical infrastructure assets on terrorism and other national security threats and risk mitigation.

8.1.85 Paragraph 4.16.4 of EN-1 states that Government policy is to ensure that proportionate protective security measures are designed into new infrastructure projects at an early stage. Paragraph 4.16.6 states that where *"national security implications have been identified, the applicant should consult with relevant security experts from NPSA, ONR (for civil nuclear) and/or DESNZ to ensure that security measures have been adequately considered in the design process and that adequate consideration has been given to the management of security risks".*

8.1.86 Paragraph 2.10.47 of EN-3 notes that applicants need to assess the visual impact of any security measures and their impacts on local residents, including issues relating to intrusion from CCTV and light pollution in the vicinity of the Site.

8.1.87 The Applicant has not identified any relevant considerations relating to national security in relation to the Proposed Development. Security requirements have been embedded into the design of the proposals from the outset and are considered proportionate. Fencing and CCTV are employed across the Site to secure and monitor solar infrastructure and the assessment of the visual impact is included in the **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].**

8.1.88 Paragraph 4.16.8 states that if *"NPSA, ONR (for civil nuclear) and/or DESNZ are satisfied that security issues have been adequately addressed in the project when the application is submitted to the Secretary of State, it will provide confirmation of this to the Secretary of State. The Secretary of State should not need to give any further consideration to the details of the security measures in its examination."* The Applicant considers that no further consideration is therefore required on security matters.

Part 5.5 of EN-1: Civil and Military Aviation and Defence Interests

8.1.89 Paragraph 5.5.5 of EN-1 states that is "*essential that new energy infrastructure is developed collaboratively alongside aerodromes, aircraft, air systems and airspace so that safety, operations and 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".*

8.1.90 Paragraph 5.5.8 discusses safeguarding of certain civil aerodromes and aviation sites in order to ensure that their safety and operation are not compromised by new development. Paragraph 5.5.9 advises a similar safeguarding applies to all military aerodromes, defence surveillance sites, and other defence assets.

8.1.91 Paragraph 5.5.35 states that "*it is important that new energy infrastructure does not unacceptably impede or compromise the safe and effective use of any defence assets or operations*". 5.5.39 continues to require applicants to consult the MOD, Civil Aviation Authority (CAA), National Air Traffic Services (NATS) and any aerodrome where it likely to be affected by the Proposed Development.

8.1.92 The Proposed Development does not fall within the Ministry of Defence (MOD) technical safeguarding zone. The MOD have been consulted through the preparation of the Application.

8.1.93 Paragraph 5.5.50 requires the SoS to be satisfied that proposals have been developed, where possible, "*to minimise adverse impacts on the operation and safety of aerodromes".* Paragraph 5.5.60 concludes that provided the SoS is

"*satisfied that the impacts of proposed energy developments do not present risks to national security and physical safety, and where they do, provided that the Secretary of State is satisfied that appropriate mitigation can be achieved, or appropriate requirements can be attached to any Development Consent Order to secure those mitigations, consent may be granted*."

8.1.94 The Applicant is not aware of any matter that would result in the Proposed Development presenting a safety or security related impact to the MOD and its assets. The Applicant considers the Proposed Development is compliant with requirements of paragraph 5.5.60 of EN-1. The following sections set out the generic impacts of the Proposed Developmeny bu techincal topic.

9. Biodiversity

9.1.1 This section reviews the Proposed Development in the context of planning policy for biodiversity and nature conservation. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6]** and **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6].**

9.1.2 Paragraph 5.4.4 of EN-1 confirms the highest level of biodiversity protection is afforded to sites identified through international conventions and that the Habitats Regulations identifies sites for which a HRA will assess the implications. Paragraph 5.4.49 of EN-1 confirms the SoS must consider whether a project is likely to have a significant effect on a protected site which is part of the National Site Network, or any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans and projects.

9.1.3 Paragraph 5.4.12 of EN-1 refers to sites of regional and local biodiversity and geological interests, which include Local Wildlife Sites, which are of substantive nature conservation value and make an important contribution to ecological networks and nature's recovery. Paragraph 5.4.52 of EN-3 states that the SoS 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.

9.1.4 EN-1 paragraph 5.4.22 states "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".

9.1.5 Paragraph 5.4.39 of the EN-1 states that the SoS should have regard to the aims and goals of the Government's 25-year Environmental Plan, recognising that failure to address the challenge of climate change will result in significant adverse impacts to biodiversity. EN-3 paragraph 2.3.7 also refers to the ambition set out in the 25-year Environment Improvement Plan.

9.1.6 EN-3 paragraph 2.5.2 states proposals for renewable energy infrastructure should demonstrate good design to mitigate impacts such as noise and effects on ecology. From the outset of the site selection exercise the Proposed Development has sought to embed good design into its approach. One of the key considerations at site selection stage, as set out in the Site Selection Report at Appendix 1 to this Planning Statement, was to avoid land which contained sensitive ecological and biodiversity related statutory designations and the Proposed Development was successful in this regard, with no international or national statutory designations being impacted by the Proposed Development.

9.1.7 NPPF Section 15: 'Conserving and enhancing the natural environment' paragraph 187 states that planning decisions should contribute to and enhance the natural and local environment, and paragraph 192 seeks to encourage opportunities to incorporate biodiversity improvements, particularly where this can secure

measurable net gains for biodiversity. Table 4 of the **Policy Compliance Document [EN010159/APP/5.6]** addresses NPPF policies with regard to biodiversity.

9.1.8 A **Shadow Habitat Regulations Assessment [EN010159/APP/5.2]** has been prepared in accordance with the requirements of Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations) to set out whether the Proposed Development is likely to have any significant effect on European designated sites. This document is submitted in support of this DCO Application. The report concludes that there will be no significant effects to European Sites during either the construction, operation or decommissioning phases of the Proposed Development or in combination with other plans and projects.

9.1.9 The biodiversity and nature conservation impacts of the Proposed Development are considered within **ES Volume 1, Chapter 6, Biodiversity [EN010159/APP/6.6].** The chapter sets out all of the designated sites (international, national, and local) of both ecological and geological conservation importance; protected species; and habitats and other species identified as being of principal importance for the conservation of biodiversity within the study area for ecology and biodiversity.

9.1.10 The **Design Approach Document [EN010159/APP/5.8]** sets out a number of Design Principles which have informed and guided the design development to date. Of relevance to the ecology and biodiversity are the following principles:

- Protect and improve the local environment
- Create new places of amenity and ecological value
- Protect and enhance places of value

9.1.11 **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]** outlines the surveys completed in terms of biodiversity that have informed the DCO Application in paragraph 6.1.4. A description of the ecological baseline conditions identified are set out in section 6.6 of that aforementioned chapter.

This has facilitated an approach in line with the requirements of paragraph 5.4.42 of NPS EN-1, that first seeks to avoid potential impacts, then minimise them, and then take on-site measures to rehabilitate or restore biodiversity, before compensating for residual, unavoidable impacts. In terms of potential impacts on both habitats and species within the Order Limits and surrounding area, **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]** summarises the following:

- Badgers – The overall effect on badgers of the Proposed Development is not significant.

- Bats – The overall effect on bats of the Proposed Development is assessed as not Significant.
- Skylarks – The overall effect on skylark of the Proposed Development is assessed as insignificant
- Other breeding birds – The overall effect on other breeding birds of the Proposed Development is assessed as Significant Beneficial
- Wintering Birds – The overall effect on wintering birds of the Proposed Development is assessed as insignificant

1.1.1 Otters – The overall effect is however, uncertain due to the unpredictable nature of this species. Therefore, although the overall effect will be beneficial but it will be insignificant

- Water vole – The overall effect is expected to be medium to high in the medium to long term. Therefore, the overall effect will be Significant beneficial
- Reptiles – The overall effect on reptiles of the Proposed Development is assessed as Significant beneficial.

1.1.2 Brown Hare and Hedgehog – The overall effect on reptiles of the Proposed Development is assessed as Significant beneficial

The embedded mitigation is described throughout section 6.10 of **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6].**

9.1.12 It is noted within **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]** there are 34 Local Wildlife Sites (LWS) within the 2km study area with seven LWS being within or adjacent to the Site, this is further demonstrated in **ES Volume 2, Figure 6.3 [EN010159/APP/6.20].** These include:

- Fledborough to Harby Dismantled Railway;
- Dunham Dubs;
- Dunham Oxbow;
- Fledborough Holme;
- South Clifton Grassland;
- West Wood;
- Road Wood; and
- Darnsyke Marsh.

While there are no direct impacts anticipated on the LWSs listed above, there are secondary impacts as a result of trench works and ancillary works associated with the Proposed Development construction.

9.1.13 Paragraph 5.4.32 of NPS EN-1 refers to ancient woodlands and veteran trees. **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]** confirms that there are no ancient woodlands contained within the Site. Ancient Woodland, Blackthorn Wood, was recorded at 514m north of the Site. The location and extent of Priority Habitat and Ancient Woodland is presented in **Volume 2, Figure 6.4 [EN010159/APP/6.20].** There is no ancient woodland directly within the Order Limits. However, there is a small cluster of trees covered by a Tree Preservation Order (TPO) within the grounds of North Clifton Hall, in the north-east section of the Order Limits.

9.1.14 As a result of the master planning of the Proposed Development, alongside the proposed mitigation measures, it can be confirmed that the Proposed Development would not result in any loss or deterioration of any veteran trees. Therefore, demonstrating that the Proposed Development is in accordance with EN-1 paragraph 5.4.53.

Biodiversity Net Gain (BNG)

9.1.15 Paragraph 4.6.1 of EN-1 explains that *"biodiversity 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".*

9.1.16 Paragraph 4.6.6 of EN-1 explains that energy NSIP proposals should seek opportunities to contribute to and enhance the natural environment by providing net gains for biodiversity where possible. Paragraph 4.6.7 of EN-1 encourages applicants to use the most current version of the DEFRA biodiversity metric to calculate their biodiversity baseline and inform their biodiversity net gain outcomes and to present this data as part of their application.

9.1.17 Paragraph 4.6.10 of EN-1 adds that BNG 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".

9.1.18 Paragraph 2.3.7 of the EN-3 advises proposed enhancements should aim to achieve environmental and biodiversity net gain in line with the ambition set out in the Environmental Improvement Plan 2023 and any statutory targets set under the Environment Act (2021) or elsewhere.

9.1.19 Paragraph 5.4.46 of EN-1 discusses opportunities for building in beneficial biodiversity or geological features as part of good design. Paragraph 5.4.20 of EN-1 adds that this can help towards delivering biodiversity net gain, and that wider ecosystem services and benefits of natural capital should also be considered when designing enhancement measures.

9.1.20 The **Design Approach Document [EN010159.APP/5.8]** sets out the design process which resulted in the layout of the Proposed Development being designed to maximise the opportunities around enhancing and conserving biodiversity and geological conservation interests. A key aspect of this design process has been around identifying and retaining landscape features which are beneficial to the layout of the Proposed Development.

9.1.21 **Biodiversity Net Gain Assessment** is included at **Appendix 6.11** to the **ES Volume 3 [EN010159/APP/6.21]**, and the assessment for Biodiversity Net Gain utilises DEFRA's Statutory Biodiversity Metric. The BNG Assessment confirms that the Proposed Development will achieve a a minimum of 10% BNG. However, the Applicant anticipates to deliver substantially more than this, as evidenced by the BNG Assessment which demonstrates what is likely being proposed.

Mitigation and Management

9.1.22 EN-1 paragraph 5.4.35 requires applicants to include appropriate avoidance, mitigation, compensation and enhancement measures as an integral part of the proposed developments. EN-1 paragraph 5.4.36 states that applicants should produce and implement a Biodiversity Management Strategy as part of their development proposals and paragraph 5.4.44 of EN-1 indicates that appropriate requirements should be attached to any consent to ensure any mitigation measures are delivered and maintained. Paragraph 2.10.90 of EN-3 states that applicants should consider enhancement, management and monitoring of biodiversity.

9.1.23 To ensure the beneficial effects of the newly created habitats are fully realised an **Outline LEMP [EN010159/APP/7.7]** forms part of the control documents submitted alongside this DCO Application. **The Outline LEMP [EN010159/APP/7.7]** sets the framework for the LEMP which will be required to be submitted and approved by the relevant local planning authorities and will set out how the newly created and retained habitats onsite will be managed throughout the operational phase of the Proposed Development. An **Outline LEMP [EN010159/APP/7.7]** is included as part of the DCO Application, which the LEMP will be substantially in accordance with.

9.1.24 The DCO Application is also accompanied by an **Outline CEMP [EN010159/APP/7.4]** and **Outline DEMP [EN010159/APP/7.6]**. These include mitigation measures which are intended to avoid negative impacts both during the construction and decommissioning phases. The **Outline CEMP [EN010159/APP/7.4]** and **Outline DEMP [EN010159/APP/7.6]** set out locations of sensitive and retained features, and the measures for the protection of these

features. The production of the CEMP and DEMP is secured via requirements 13 and 20 of the DCO and they will need to be approved by the relevant local planning authority prior the relevant stage of either construction or decommissioning, and will be substantially in accordance with the outline versions. Some examples of the types of measures included in the **Outline CEMP [EN010159/APP/7.4]** and **Outline DEMP [EN010159/APP/7.6]** include the management of accesses, and the control of noise and lighting.

9.1.25 In respect of EN-3 paragraph 2.10.82, lighting impacts on local ecology have been considered. During construction, operation and decommissioning phases, no part of the Proposed Development would be continuously lit and any lighting would be directional to minimise outward light spill onto vegetation which may be used by birds. Therefore, lighting is not anticipated to impact upon retained habitats (such as woodland and hedgerows) and any assessed sensitive receptors (such as bats and birds) using such habitats.

Summary

9.1.26 From the outset of the Proposed Development, the Applicant has sought to embed biodiversity and nature conservation considerations into the design process. This is evident at the site selection stage where the Applicant purposefully sought land which did not include any highly sensitive ecological/biodiversity related statutory designations.

9.1.27 As explained in the **Statement of Need [EN010159/APP/7.1]** and summarised above in Section 3, the Proposed Development has the potential to deliver significant amounts of low-carbon electricity and make a material contribution to help meet the UK's commitments to decrease carbon emissions and reach net zero by 2050. Failure to deliver infrastructure projects that deliver low carbon electricity, damage the UK's prospects of meeting its climate change targets and will result in significant adverse impacts to biodiversity.

9.1.28 The Order Limits associated with the Proposed Development do include the Fledborough to Harby Dismantled Railway which is an LWS. The land will be able to be used in the same manner as prior to the Proposed Development. There will be no disturbance to the LWS directly as the Proposed Development does not require any permanent or temporary land take within this area of the Order Limits. However, construction works, and habitat enhancements are proposed to take place within adjacent areas. NPS EN-1 paragraph 5.4.52 notes that "*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*".

9.1.29 In the medium to long term the aforementioned LWS will be buffered by the creation and enhancement of semi-natural habitats. **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6]** confirms that there are no significant adverse residual effects for the Fledborough to Harby Dismantled Railway LWS within the Order Limits.

9.1.30 Mitigation of potential impacts is embedded into the design of the Proposed Development with avoidance of impacts being prioritised, noting that the assessment concludes that there are no residual adverse effects as a result of mitigation. Additionally, for all phases of the Proposed Development, a suite of detailed management plans will be developed and implemented across each phase as relevant, as outlined within the **Outline CEMP [EN010159/APP/7.4]**, **Outline OEMP [EN010159/APP/7.5], Outline DEMP [EN010159/APP/7.6]** and **Outline LEMP [EN010159/APP/7.7].** These management plans will include mitigation measures intended to avoid or reduce adverse effects, in accordance with the mitigation requirements of EN-1 paragraph 5.4.35 and monitoring requirements of EN-3 paragraph 2.10.90.

9.1.31 Additional habitats are created across the Order Limits, improving links between habitats within and adjacent to the Order Limits, resulting in the Applicant providing at least 10% BNG. However, it is likely that BNG will be significantly higher than this for habitat, hedgerow and watercourse units. The **Outline LEMP [EN010159/APP/7.7]** includes measures to ensure biodiversity net gain is achieved and maintained throughout the operation phase of the Proposed Development. The biodiversity new gain strategy must be substantially in accordance with the oLEMP, as set out in Requirement 9 of the **Draft DCO [EN010159/APP/3.1]**

9.1.32 It is therefore considered that the Proposed Development has both addressed and been compliant with the specific EN-1 tests as set out in paragraph 5.4.42 and 5.4.43. For more information as to how the Proposed Development has been compliant with the aforementioned tests, please refer to table 1 of the **Policy Compliance Document [EN010159/APP/5.6]**.

10. Hydrology and Hydrogeology

10.1.1 This section reviews the Proposed Development in the context of planning policy for hydrology and hydrogeology. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.7].**

10.1.2 Paragraph 5.18.12 of EN-1 staes that 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.

10.1.3 Paragraph 5.8.13 of EN-1 states that applications for energy projects of 1 hectare or greater in Flood Zone 1 in England and all proposals for energy projects located in Flood Zone 2 and 3 in England should be accompanied by a flood risk assessment (FRA). The Order Limits includes land identified within Flood Zones 2 and 3, and this is approximately 56% of the Site and therefore an FRA is required.

10.1.4 An FRA is included in **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** and has been prepared in accordance with the requirements of Section 5.8 of EN-1 and the NPPF. Table 1 of the **Policy Compliance Document [EN010159/APP/5.6]** confirms that the FRA has been prepared in full accordance with the requirements of EN-1. The likely effects of the Proposed Development associated with flood risk have been assessed in **ES Volume 2, Chapter 7, Hydrology and Hydrogeology [EN010159/APP/6.7].** The **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** concludes that the risk of the Proposed Development flooding from all sources is deemed minor adverse (not significant) and will see no increase other than in some localised areas where flood depths exceed 1.5m. Although the depth of flooding in these locations will be greater than 1.5m, many of the panels set 1.8m above ground will still be above the flood level but will have a freeboard of less than 300mm. the flood level but will have a freeboard of less than 300mm (refer to Figure 3-9). Only a small portion of the solar panels would experience flooding at their base, and the depth of flooding to the panels will be limited. The operational impact should this occur is considered to be acceptable, and this approach has been discussed and agreed with the EA.

10.1.5 However, flood risk can be effectively managed via mitigation measures identified in the **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** which include:

- Raising equipment above the design flood level on frames and voided structures, where possible, to limit loss in floodplain storage or adverse changes in flood flows;
- No land raising being proposed within the Site, ensuring there is no loss in floodplain storage; and

- Managing surface water runoff from any areas of significant hardstanding and restricting runoff to match the natural greenfield runoff rates. This ensures there is no increase in flood risk downstream.

10.1.6 Paragraph 5.8.21 of NPS EN-1 requires the Sequential Test to be followed which 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 Sequential Test should go on to compare reasonably available sites with medium risk

10.1.7 NPS EN-1 paragraph 5.8.23 goes on to state that the consideration of alternative sites should take account of the policy on alternatives and that all projects should apply the Sequential Test to locating development within the Order Limits. Paragraph 5.8.29 continues the theme of design, advising that the sequential approach should be applied to layout and design. It states that *"vulnerable aspects of development should be located on parts of the site at lower risk and residual risk of flooding".*

10.1.8 Paragraph 5.8.36 of EN-1 sets out the criteria with regard to flood risk that the SoS should be satisfied is addressed when determining the DCO Application. The **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** has been prepared in accordance with EN-1 and the NPPF requirements. This is further requested within paragraph 2.10.84 of EN-3, which notes that where a flood risk assessment has been carried out, this must be submitted alongside the Applicant's ES and must consider the impact of drainage. The Applicant considers that the FRA satisfies the relevant provision within paragraph 5.8.36 of EN-1.

10.1.9 Paragraph 5.8.41 of EN-1 also goes on to state *that "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."*

10.1.10 Paragraph 2.4.11 of NPS EN-3 states that "*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"*

10.1.11 NPPF paragraph 170 states that "*inappropriate development in areas at risk of flooding should be avoided and that development should be directed away from*

areas at highest risk. Where development is necessary in areas of flood risk, the development should be made safe for its lifetime without increasing flood risk elsewhere".

10.1.12 In this case, while no built development is proposed in Flood Zone 3b (functional floodplain), there is built development (including solar panels, cabling and some inverters – see below) proposed within the Order Limits within Flood Zones 2 and 3a, as such the sequential approach to the location of development in terms of flood risk must be applied. As per the Planning Practice Guidance, the 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. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding. The Order Limits includes the following within each type of Flood Zone:

- Flood Zone 3b - no electrical infrastructure, enhancement and mitigation only
- Flood Zone 3a – Solar PV arrays, cable routes and inverters
- Flood Zone 2 - Solar PV arrays, cable routes and inverters
- Flood Zone 1 - Solar PV arrays, cable routes and substation/Battery Storage compound

Sequential Test

10.1.13 In accordance with paragraph 5.8.21 of NPS EN-1 the Applicant has applied a sequential, risk-based approach to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account.

Location

10.1.14 As outlined within the Site Selection Report at Appendix 1 of this Planning Statement, during the site selection stage, the secured grid connection at High Marnham Substation was the starting point for selecting the Order Limits for the Proposed Development. Grid connection points / National Grid substations with spare capacity are finite and should be utilised wherever possible to fulfil the urgent need for new renewable energy development as part of delivering on Net Zero statutory targets.

10.1.15 Having identified the point of connection and securing a connection agreement, the Applicant undertook a search within 10km for suitable areas of land for NSIP scale solar development, driven by the desire to be as close to the point of connection as possible, in order to minimise the risk of environmental impacts, disruption to multiple landowners, challenges with crossings and process losses, and the cost and delay of a longer cable route. During this exercise it was identified

that towards the east, land beyond the Order Limits is largely all located within Flood Zone 3, with some small isolated parcels of Flood Zone 1 and 2 around the settlements of Wigsley and North Scarle. Similarly to the south, most of the land is located in Flood Zone 3, with a small pocket of land in Flood Zone 1 and 2 around the settlement of Carlton-on-Trent. To the north, beyond the parcel of land within Flood Zone 1 that is within the Order Limits, there is very little land sitting outside of the flood zones, with small pockets surrounding the settlements of Laugherton and Kettlethorpe. The pockets of Flood Zone 1 identified are of such a size that they could not accommodate an NSIP scale solar development alone or in combination, and additional land is required to utilise the connection. The land further east, north east and south east beyond Flood Zones 1 and 2 are proposed for other NSIP-scale solar farms which were at various stages of the DCO process during the site selection process (Cottam, West Burton and Gate Burton all now consented and Fosse Green which is still at the pre-submission stage). The Applicant sought to consider the potential for cumulative impacts with these schemes, which ruled out the inclusion of land parcels further east.

10.1.16 It is noted that there are larger areas to the west of the point of connection within a 10km radius, up to Egmanton in the south west, Tuxford and East Markham in the west and East Drayton in the north west, that are located outside of the flood zones, in Flood Zone 1.

10.1.17 These areas were discounted at site selection stage because they were not suitable taking into account wider sustainable development objectives, as set out in paragraphs 5.8.9 and 10 of EN-1, for the development of large scale solar, for the following reasons:

- the landowners were not willing to put their land forward for the Proposed Development and the Applicant's aim is to secure the land parcels by voluntary agreement where possible;
- large areas to the west of the High Marnham Substation are at higher ground where the land rises steeply to form a ridge, in proximity to the settlements of Tuxford and East Markham and therefore would have greater effects on the landscape and visual impacts and as such is less suitable for large scale solar development;
- towards the south west around Egmanton, there are areas of Ancient Woodland that would discount large parcels within these areas due to the protected nature of the woodland;
- during the site selection process the Applicant sought to avoid ALC Grade 2 (based on Defra mapping) areas further west and south. In addition, the Natural England Likelihood of BMV Agricultural Land map showed that all of the land to the west beyond the Order Limits was predicted to have a moderate to high likelihood of BMV, with the greater likelihood as you move

further west beyond East Markham, and so a greater impact on BMV was anticipated further west;

- further west the settlement pattern becomes more clustered and denser (around the larger settlements of Tuxford and East Markham for example) and was considered less suitable than the land closer to the point of connection because the landscape, visual and amenity impacts would be greater.

10.1.18 As such, the land to the west which is in Flood Zone 1 has been identified by the sequential test, however accounting for wider sustainable development objectives, there is clear reasoning for discounting development within these areas, as set out above, in accordance with policy set out in paragraphs 5.8.9 and 5.8.10 of NPS EN-1. The Applicant considers that the due consideration outlined above during site selection stage satisfies paragraph 5.8.36 of EN-1 to the extent that the Sequential Test has been applied and satisfied as part of site selection. Furthermore, the EA were consulted early on in the design development process and were clearly amendable to a solution for siting solar PV arrays within the areas at risk of flood which did not increase the risk of flooding within the Order Limits or elsewhere. The Applicant therefore carried out a balancing exercise based on the ability to reduce and mitigate impacts and on the basis that an acceptable solution could be reached with the EA in relation to flood risk. This balancing exercise sought to minimise landscape and residential amenity impacts as part of the design of the Proposed Development, which means in some cases it was not possible to avoid all areas within Flood Zones 2 and 3a and so opportunities to mitigate flood risk was discussed with the EA.

Layout and Design

10.1.19 Paragraph 5.8.23 advises that *"all projects should apply the Sequential Test to locating development within the site."* Paragraph 5.8.29 continues on the theme of design, advising that the sequential approach should be applied to layout and design. It states that *"vulnerable aspects of development should be located on parts of the site at lower risk and residual risk of flooding".*

10.1.20 Following the selection of the Order Limits, the Applicant applied a sequential approach to the layout and design of the Proposed Development. The EA's Flood Map for Planning indicates that large areas of the Site are situated within Flood Zone 2 and 3, indicating a medium to high probability of flooding from fluvial and tidal sources. Flooding from all sources has been further assessed within the **ES Volume 2, Chapter 7: Hydrology and Hydrogeology [EN010159/APP/6.7].** Flooding in these areas is predominantly associated with the River Trent as well as existing watercourses which are in hydraulic connectivity with the River Trent. An area of land running north to south along either side of the River Trent are situated in the functional floodplain (Flood Zone 3b).

10.1.21 The design process sought to avoid higher risk areas of Flood Zone 3b. Paragraph 5.8.41 of NPS EN-1 states that energy projects should not normally be consented

within Flood Zone 3b, 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. The Government's guidance on flood risk and coastal change **[Ref. 17]** provides information on flood vulnerability classification at Annex 3. Annex 3 defines essential infrastructure as:

- Essential transport infrastructure (including mass evacuation routes) which has to cross the area at risk.
- Essential utility infrastructure which has to be located in a flood risk area for operational reasons, including infrastructure for electricity supply including generation, storage and distribution systems; including electricity generating power stations, grid and primary substations storage; and water treatment works that need to remain operational in times of flood.
- Wind turbines.
- Solar farms.

10.1.22 Based on the above definition, the Proposed Development is classified as essential infrastructure. As outlined in the in the Site Selection Report at Appendix 1 and section 5 above, the location of the Proposed Development was determined by the proximity to the point of connection for operational reasons.

10.1.23 However as set out above, there will be no electrical infrastructure located within Flood Zone 3b (functional floodplain), and where land within this area has been included in within the Order Limits, it will only be used for enhancements and/or mitigation (ecological enhancements for example).

10.1.24 On this basis, it is considered that the Proposed Development meets the first part of paragraph 5.8.41 of NPS EN-1, and the second part of the paragraph does not apply, given that there will be no electrical infrastructure located within Flood Zone 3b.

10.1.25 Once the highest risk area of Flood Zone 3b was avoided for all electrical infrastructure, it was then important to consider the most vulnerable uses and how these would be designed within the Order Limits. The two on-site substations and BESS have been located outside of Flood Zone 2 and 3, and outside of the pluvial and design flood extents, ensuring they remain operational even in times of flood.

10.1.26 The majority of the inverters will also be located outside of Flood Zone 2 and 3, and outside of the pluvial and design flood extents, however due to the scale of the development, there is a need to incorporate more frequent inverters and as a result of this, there are some locations where these will need to be located within the flood extents. Where this is the case, the inverters will be raised above the

design flood level on raised platforms, providing a freeboard of 300mm. To ensure that there will only be a negiligible impact in floodplain storage, it is proposed that these features will have a voided structure beneath, allowing the flow and storage of floodwater beneath. This has been agreed with the EA.

10.1.27 With regards to the solar PV arrays, following discussions with the EA, they stated that ideally panels would be raised above the design flood levels, with 300mm freeboard provided to the base of the panel itself. The height to which the panels can be raised is subject to a number of environmental, engineering and maintenance considerations (including visual impact, engineering feasibility, foundation design as well as impacts to archaeology). Through assessing these elements, it is concluded that the maximum height the panels can be raised to is 1.8m (i.e. between ground level and the base of the panel itself) and the assessment made is based on this.

10.1.28 Taking into the account the preference for 300mm freeboard, development within areas where flood depths exceed 1.5m will be avoided wherever possible. There are however, some localised positions where flood depths exceed 1.5m (namely to the far eastern boundary and on the western banks of the River Trent). Although the depth of flooding in these locations will be greater than 1.5m, many of the panels will still be above the flood level but will have a freeboard of less than 300mm. Only a small portion of the solar panels would experience flooding at their base, and the depth of flooding to the panels will be limited. The operational impact should this occur is considered to be acceptable. This approach has been discussed and agreed with the EA.

10.1.29 To this end the Applicant considers that it has demonstrated compliance with the relevant sections of paragraph 5.8.36 in relation to the Sequential Test to site selection and a sequential approach to the site layout and design.

Exceptions Test

10.1.30 Following the completion of the Sequential Test and in accordance with the requirements of paragraph 5.8.9 of EN-1, the Applicant has applied the Exception Test to the proposed Solar PV arrays and infrastructure within Flood Zones 2 and 3. In accordance with paragraph 5.8.10 of EN-1, the Applicant considers it appropriate to apply the Exception Test as the Sequential Test has demonstrated that, at a site specific level taking into account wider sustainable development objectives, there are no reasonably available lower risk sites to locate the required Solar PV arrays and infrastructure that would deliver the same amount of renewable energy to fully utilise the available grid connection within the same time period. **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** sets out that in the NPPF the Exception Test needs to be passed in order for essential development to be considered acceptable in Flood Zones 2 and 3. EN-1 paragraph 5.8.11 further replicates the tests set out in Paragraph 178 of the NPPF which state that:

- Development that has to be in a flood risk area will provide wider sustainability benefits to the community that outweigh flood risk, and

- 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.

10.1.31 In relation to the first bullet point, above, the Applicant considers that the substantial benefits that the Proposed Development would deliver, as set out in Section 3 of this Planning Statement and considered further in the planning balance at Section 9, would clearly outweigh the flood risk. As articulated in the **Statement of Need [EN010159/APP/7.1]**, these are considered to be sustainability benefits to the wider community because significant renewable energy schemes at scale are required to be able to meet the legal binding commitment to Net Zero and make energy more affordable and reliable for all. The Proposed Development also delivers local community benefits through the additional proposed permissive paths, biodiversity net gain and environmental enhancements (see Section 3 of this Planning Statement). Significant socio-economic effects are also anticipated through an investment of approximately £1billion during construction and 4,000 FTE jobs across the whole value chain[1].

10.1.32 In relation to the second bullet point, the mitigation measures included as part of the Proposed Development, as well as the removal of all electrical infrastructure from Flood Zone 3b, will ensure that the Proposed Development will be safe for its lifetime.

10.1.33 The Proposed Development includes the following mitigation measures:

- Sequentially setting out the proposed development, ensuring that sensitive electrical equipment is not located within the flood zone 3b floodplain, wherever possible.

- The raising of equipment (both solar panels and inverters where necessary) above the design flood level (with the exception of some small localised areas) on frames and voided structures, to minimise the impact on floodplain storage to acceptable levels or adverse changes in flood flows.

- No land raising being proposed within the Order Limits, ensuring that there is only a negligible impact on floodplain storage as a result of the panel

[1] These estimates are now somewhat dated and include all economic effects across the entire value chain, from manufacture of the solar modules themselves, to subsequent coatings/treatments of the modules as well as transmission and distribution. Hence not all is likely to benefit UK companies. Given the uncertainties associated with these estimates, this does not form part of the EIA assessment, but they do indicate that, a national level at least, the Proposed Development has the potential to support thousands of jobs along the total supply chain

upstands for the areas where there are solar panels in Flood Zones 2 and 3a, which the EA has confirmed is acceptable.

10.1.34 **ES Volume 3, Appendix 7.2, Flood Risk Assessment (FRA) and Drainage Strategy [EN010159/APP/6.21]** concludes that the Proposed Development will not increase flood risk from any sources. The Applicant therefore considers that the Proposed Development complies with the Exception Test requirements set out in paragraph 5.8.11 of EN-1. As such, the Applicant considers that its approach to site selection and the design level site selection demonstrates compliance with the requirements of paragraphs 5.8.21, 5.8.23 and 5.8.29 in EN-1.

10.1.35 The Applicant considers that the section above demonstrates the Applicant's compliance with the key policy tests and requirements from EN-1, notably paragraph 5.8.36, in relation to Flood Risk. It is considered that the site selection process has had due regard to the Sequential Test and that the design and layout has taken a sequential approach and considered the flood risk characteristics of the site, with the most vulnerable uses being located in the lowest risk areas. The Applicant considers that the Proposed Development is acceptable in flood risk terms.

10.1.36 The Applicant also considers that the Proposed Development is aligned with the aims and intentions of the Lincolnshire Flood Risk and Water Management Strategy, although it is noted that the strategy sets out a more strategic framework for flood management within the county. The Applicant considers that it is compliant with paragraph 5.8.36 of EN-1 in this regard.

10.1.37 In reference to the section of paragraph 5.8.36 of EN-1 that requires the Proposed Development to provide safe access and escape routes as part of an emergency plan, the **oCEMP [EN010159/APP/7.4], oOEMP [EN010159/APP/7.5]** and **oDEMP (inc restoration) [EN010159/APP/7.6],** which each set out a requirement for an Emergency Response Plan and Health and Safety Plan which both specifically require flood risk to be addressed. These documents are all secured by way of requirement in the **Draft DCO [EN0101549/APP/3.1].** The Applicant therefore considers that it is compliant with the relevant section of 5.8.36 in EN-1.

10.1.38 Solar farms (i.e. the panels themselves) are not considered to result in significant increases in runoff when compared to the existing greenfield situation. This is on the basis that runoff from the panels themselves will simply drop directly to the ground where the natural regime will be maintained. The Proposed Development includes a drainage strategy within the **Flood Risk Assessment [EN010159/APP/6.20]** which sets out how the detailed drainage design and strategy will utilise SuDS. The Applicant therefore considers that it is compliant with the relevant section of 5.8.36.

10.1.39 Paragraph 5.16.3 of EN-1 requires the applicant to undertake an assessment of the existing status of and impacts of the Proposed Development on water quality,

water resources, and physical characteristics of the water environment as part of the ES. Paragraph 5.16.7 of EN-1 lists what should be included within the ES.

10.1.40 Paragraph 5.16.12 of EN-1 notes that impacts on the water environment will generally be given more weight where a project would have an adverse effect on the achievement of the environmental objectives established under the Water Framework Directive. In response, section 7.3.16 of the **ES Volume 2, Chapter 7, Hydrology and Hydrogeology [EN010159/APP/6.7]** concludes that due to the nature of the Proposed Development, it is not considered likely that any issues to the watercourses will be present, as these will be dealt with through the inclusion of environmental measures and protective provisions, a Water Framework Directive Stage 1 Screening assessment is included with the DCO application within the **Flood Risk Assessment [EN010159/APP/6.20].** Paragraph 5.16.14 of EN-1 states that a proposal should have regard to the River Basin Management Plans and meet the Water Framework Directive Regulations 2017 requirement. It adds the overall aim of development should be to prevent deterioration in the status of water bodies to support the achievement of the objectives in the River Basin Management Plans and not to jeopardise the future achievement of good status or good potential for any affected water bodies.

10.1.41 It is further discussed within paragraph 2.10.154 of EN-3 that "*water management is a critical component of site design for ground mount solar plants*". Particularly discussing that where previous management of the Site has involved intensive agricultural practices, solar sites can deliver significant ecosystem services value in the form of drainage, flood attenuation, natural wetland habitat, and water quality management.

10.1.42 **ES Volume 2, Chapter 7: Hydrology and Hydrogeology [EN010159/APP/6.7]** assesses all likely significant effects of the Proposed Development upon the water bodies within the study area. The analysis from these findings is set out in further detail within section 7.6 of **ES Volume 2, Chapter 7:Hydrology and Hydrogeology [EN010159/APP/6.7]**. The ES identifies the following sensitive receptors:

- Users of both the construction site (i.e. construction workers) and of the completed development in relation to flood risk from all sources;
- Off Site areas in relation to flood risk from all sources;
- Existing watercourses on and adjacent to the Site with respect to surface water discharge rates, volume, and quality of runoff;
- The surrounding Anglian Water and Severn Trent water mains with regard to potable water capacity/supply; and
- Anglian Water groundwater abstractions with respect to groundwater quality and flows.

10.1.43 Paragraph 5.16.8 of EN-1 states the SoS should consider whether mitigation measures are needed over and above any which may form part of the project application.

10.1.44 Paragraph 5.16.9 of EN-1 states "*the risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice".*

10.1.45 The environmental measures secured in the **FRA and Outline Drainage Strategy [EN010159/APP/6.21]** include a minimum offset of 10m from all ditches and water courses. In terms of the River Trent, and associated flood defences, there are a number of formal flood defences as shown within the EA asset management records. These defences are predominantly in the form of raised embankments and are shown broadly to be in a fair to good condition, as classified by the EA. To ensure that impacts on the existing defences are minimised and that access is not restricted, significant offsets (minimum of 16m) are provided between the defences and the built development that occurs. It is understood that the defences are inspected regularly by the EA. The **FRA and Outline Drainage Strategy [EN010159/APP/6.21]** provides details on the measures for ensuring the protection of the water environment.

10.1.46 The NPPF paragraph 187(e) states that planning policies and decision should "*contribute to and enhance the natural and local environment by…preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability*". It is considered that the results of the assessment of water environment affects included in **ES Volume 3, Chapter 7: Hydrology and Hydrogeology [EN010159/APP/6.7]** accords with the NPPF in regard to water environment impacts.

10.1.47 Central Lincolnshire Local Plan discusses within Policy 21 (Flood Risk and Water Resources) that "*development must contribute positively to the water environment and its ecology where possible and does not adversely affect surface and ground water quality in line with the requirements of the Water Framework Directive".*

10.1.48 Newark and Sherwood Local Development Framework Core Strategy and Allocations, Amended Core Strategy discusses water resources with Core Policy 10 (Climate Change), requiring that "*where appropriate having applied the Sequential Test move on to apply the Exceptions Test, in line with national guidance. In those circumstances where the wider Exceptions Test is not required proposals for new development in flood risk areas will still need to demonstrate that the safety of the development and future occupants from flood risk can be provided for, over the lifetime of the development [and] ensure that new development positively manages its surface water run-off through the design and layout of development to ensure that there is no unacceptable impact in run-off into surrounding areas or the existing drainage regime*."

10.1.49 Bassetlaw Local Plan 2020-2038 discusses flood risk, drainage and water resources with Policy ST50 (Flood Risk and Drainage) and Policy ST51 (Protecting Water Quality and Management). The full policy is within the Policy Compliance Document [EN010159/APP/5.6], along with a full analysis of the Applicant's compliance with Policies ST50 and ST51.

Summary

10.1.50 Pargraph 5.8.42 of EN-1 confirms that, exceptionally, where an increase in flood risk elsewhere cannot be avoided or wholly mitigated, the SoS may grant consent if they are satisfied that the increase can be mitigated to an acceptable and safe level taking into account the benefits of the Proposed Development. In this case, it has not been possible to wholly mitigate the potential flood risk because in some small localised areas where a small portion of the solar panels would experience limited flooding at their base, there is a negligible impact on flood plain storage, but is considered in the **FRA and Outline Drainage Strategy [EN010159/APP/6.21]** to be negligible. It has however been agreed with the EA that the operational impact of this would be acceptable. The decision making test at 5.8.42 therefore does not apply. However, the Applicant considers that the section above demonstrates the Applicant's compliance with the key policy tests and requirements from EN-1, notably paragraph 5.8.36, in relation to hydrology and hydrogeology. It is considered that the site selection process has passed the Sequential Test and that the design and layout has considered the flood risk characteristics of the Order Limits and taken a sequential approach. The Applicant considers that the Proposed Development is acceptable in flood risk terms.

10.1.51 The approach to the water environment presents a strict test within paragraph 5.16.12 – 5.16.15 of EN-1 where the water body falls under the Water Framework Directive. The other receptor groups assessed (Water Quality of water resources and Water Resources) record no greater than minor adverse impacts, and therefore not significant. Due to the nature of the Proposed Development, it is not considered likely that any issues to the watercourses will be present, as these will be dealt with through the inclusion of environmental measures and protective provisions, a WFD Screening Assessment is included with the DCO application within the **Flood Risk Assessment [EN010159/APP/6.20].**

10.1.52 The Proposed Development is considered to be in compliance with EN-1, EN-3, NPPF, and with the relevant local planning policy, as set out above.

11. Land and Soils

11.1.1 This section reviews the Proposed Development in the context of planning policy for land and soils. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

11.1.2 **ES Volume 2, Chapter 8, Land and Soils [EN010159/APP/6.8**] assesses the impact of the Proposed Development on Land and Soils. The Chapter is supported by **Appendices 8.1 – 8.7 [EN010159/APP/6.21]** which includes the Agricultural Land Classification (ALC) assessment of the Site.

11.1.3 Agricultural land quality is graded by the system of ALC decided by Natural England. The ALC system divides land into five grades 1 to 5, with grade 3 subdivided into 3a and 3b.

11.1.4 Paragraph 5.11.12 of EN-1 states that applicants should seek to minimise impacts on the Best and Most Versatile (BMV) agricultural land (defined as land in grades 1, 2 and 3a of the ALC) and preferably use land in areas of poorer quality (grades 3b, 4 and 5).

11.1.5 Paragraph 5.11.34 of EN-1 advises that the SoS should ensure that applicants "*do not site their scheme on the best and most versatile agricultural land without justification*". EN-1 needs to be read in the context of the more specific focus in relation to ground mounted solar PV projects in EN-3. Paragraph 2.10.30 of EN-3 notes that "*development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land*". However, the choice of site should be explained by the Applicant, noting a preference for development to be situated on suitable brownfield, industrial and low and medium grade agricultural land. This approach is also reflected in the 2024 Written Ministerial Statement: Solar and protecting our Food Security and Best and Most Versatile Land (BMV) Land (2024 WMS) which emphasises that BMV land should be avoided where possible and that due weight be given to proposed use of such land when considering whether planning consent should be granted for solar developments.

11.1.6 The NPPF (2024) requires, in paragraph 187b, that the economic and other benefits of the BMV agricultural land be recognised in planning decisions. BMV agricultural land is defined as land in grades 1, 2 and 3a of the Agricultural Land Classification. In the context of plan making, footnote 65 to paragraph 188 of the NPPF requires plan makers to seek to use poorer quality land in preference to that of a higher quality, however, the newly adopted NPPF (December 2024) amended the footnote (now 65) removing the need to consider the availability of agricultural land for food production. It is however noted that the 2024 WMS referenced above has not yet been updated to reflect this change. The 2024 WMS reiterated planning policy in place at the time, including the need to consider the availability of agricultural land used for food production (albeit recent Secretary of State decisions confirm that the 2024 WMS does not introduce any new policy requirement and simply emphasises certain aspects of the existing policy in the

NPSs, see for example the decision on West Burton solar farm). The amendment to the now footnote 65 excludes the consideration of food production as an important and relevant policy test. Whilst it is acknowledged that the 2024 WMS may be material in decision making (noting that it only emphasises elements of the existing NPS), it is clear that the publication of the NPPF (December 2024) is government policy and, to the extent the 2024 MWS could be suggested to introduce policy around food production, the NPPF amendments supersede the 15 May 2024 WMS issued by the former Secretary of State for Energy Security and Net Zero. It should be noted, that the current, Labour Secretary of State's statement in the House of Commons on the 18 July 2024 called "Clean Energy Superpower Mission" stated that:

> *"The biggest threat to nature and food security and to our rural commuities is not solar panels or onshore wind; it is the climate crisis, which threatens our best farmland, food production and the livelihoods of farmers".*

11.1.7 In view of the above, the NPPF and NPS EN-1 and EN-3 (Ref. 1-21) (and 2024 MWS) are now fully aligned with respect to the use of agricultural land within national planning policy (paragraph 5.11.12 of NPS EN-1) requiring applicants to demonstrate that development of agricultural land is necessary and that impacts are minimised on BMV agricultural land. The Application has demonstrated through its site selection process as set out in **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN010159/APP/6.4]** and the Site Selection Report attached to this Planning Statement as Appendix 1 that it is necessary and justified to use agricultural land and that the use of BMV has been minimised with no significant effects arising in terms of permanent loss. This fully accords with current policy.

11.1.8 The Central Lincolnshire Joint Strategic Plan notes at Policy S14 (Renewable Energy) supports the principle of renewable energy development where specific criteria relating to potential impacts of development are met. The policy also refers specifically to solar and states a presumption in favour for ground-based photovoltaics unless:

- There is clear and demonstrable significant harm arising; or
- the proposal is (following a site specific soil assessment) to take place on Best and Most Versatile (BMV) agricultural land and does not meet the requirements of Policy S67; or
- the land is allocated for another purpose in this Local Plan or other statutory based document (such as a nature recovery strategy or a Local Transport Plan), and the proposal is not compatible with such other allocation.

11.1.9 Bassetlaw Local Plan 2020-2038 Policy ST49 (Renewable Energy Generation) supports "development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy … subject to the satisfactory

resolution of all relevant site specific and cumulative impacts upon … the best and most versatile agricultural land".

11.1.10 These local policies are consistent with national policy on BMV agricultural land and so are addressed in the discussion on compliance with national policy.

11.1.11 **ES Volume 3, Appendix 8.6: Agricultural Land Classification Survey Report [EN010159/APP/6.21]** provides details of the soil type and ALC of soil within the Order Limits, and these are discussed within paragraph 8.4.33 of **ES Volume 2, Chapter 8, Land and Soils [EN010159/APP/6.8]**.

Best and Most Versatile Land: Site Selection

11.1.12 EN-3 sets out that ALC and type is one of the likely factors that will influence site selection. Both paragraphs 5.11.12 of EN-1 and 2.10.29 of EN-3 state that the use of lower grade agricultural land is preferred to the use of BMV with the position in EN-3 being that applicants should seek to utilise, where possible, "*suitable previously developed land, brownfield land, contaminated and industrial land*". The significant caveat to this is that paragraph 2.10.29 of EN-3 states that "*land type should not be a predominating factor in determining the suitability of the site location*". Paragraph 2.10.30 of EN-3 further states that "*the development of ground mounted solar arrays is not prohibited on Best and Most Versatile agricultural land*" while 2.10.31 of EN-3 recognises that at NSIP scale, "*it is likely that applicants' development will use some agricultural land*".

11.1.13 Both EN-1 and EN-3 are clear that the Applicant is required to justify the use of agricultural land within projects but recognise that it may not be practicable to completely avoid the use of BMV land. In summary therefore, BMV is an important (but not predominant) factor influencing site selection; however, with justification for its use, policy is supportive in principle of its inclusion within projects.

11.1.14 The Applicant's Site Selection Report is set out at Appendix 1 to this Planning Statement and explains the Applicant's approach to selection of an appropriate Site to take forward as part of an application for a NSIP scale solar project. The report explains that initially there are three fundamental attributes required to develop NSIP scale solar: suitable irradiance and topography; a connection to the National Grid, and available land. These three attributes identified locations which may be suitable for such solar development and focussed the Applicant's search on sites within the local area of Nottinghamshire and Lincolnshire. Once the search area was determined, the Applicant applied specific environmental search criteria, including agricultural land grade to find appropriate land which would be able to deliver its objectives. The Applicant was focussed on trying to reduce the area of BMV agricultural land included within the Order Limits, and within the categories of BMV land, minimising the use of higher grade categories as much as possible, whilst balancing this with other impacts including residential amenity and landscape considerations.

11.1.15 In terms of context, it is noteworthy that the Natural England technical advice note predicts that 42% of agricultural land within England is of BMV quality. Within Lincolnshire the proportion rises to 71.2% and within Nottinghamshire the proportion rises to 49% thereby increasing the likelihood that higher quality agricultural land will be encountered.

11.1.16 The Applicant used the provisional and predictive mapping data produced by the Department for Rural Affairs and Agriculture (Defra) and Natural England, respectively to seek to identify land with lower or no agricultural classification. Extracts from the mapping data used are illustrated below:

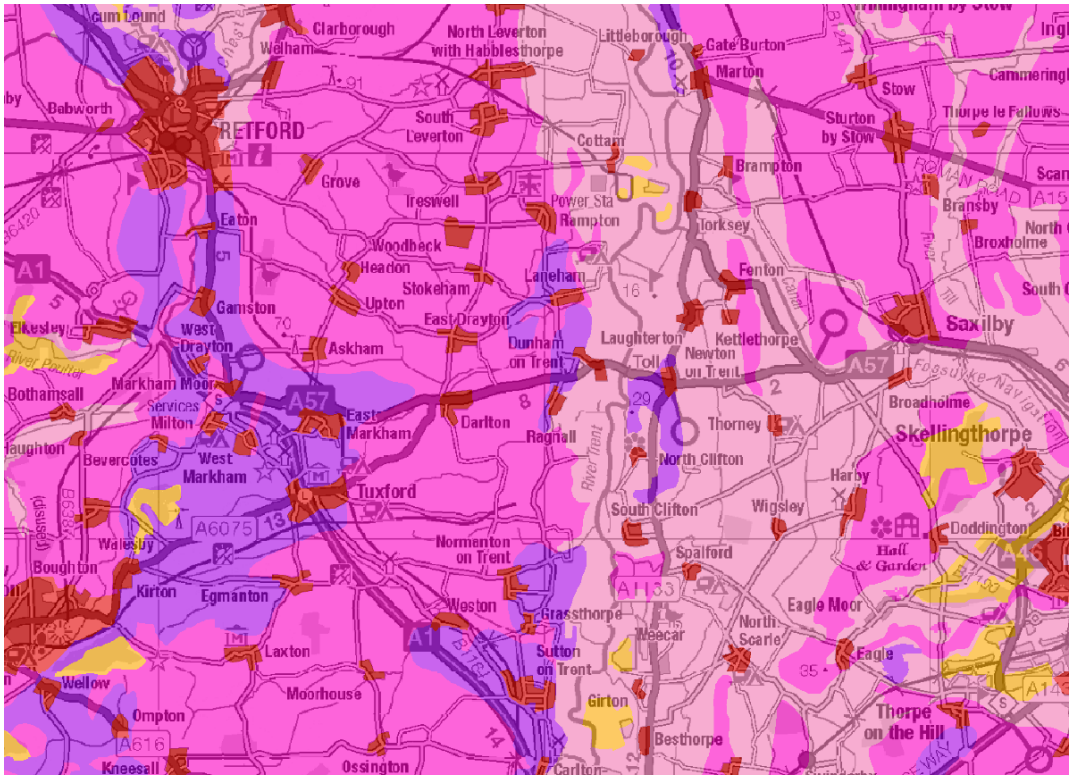

Figure 8.4.1 – DeFRA Predictive BMV Map extract

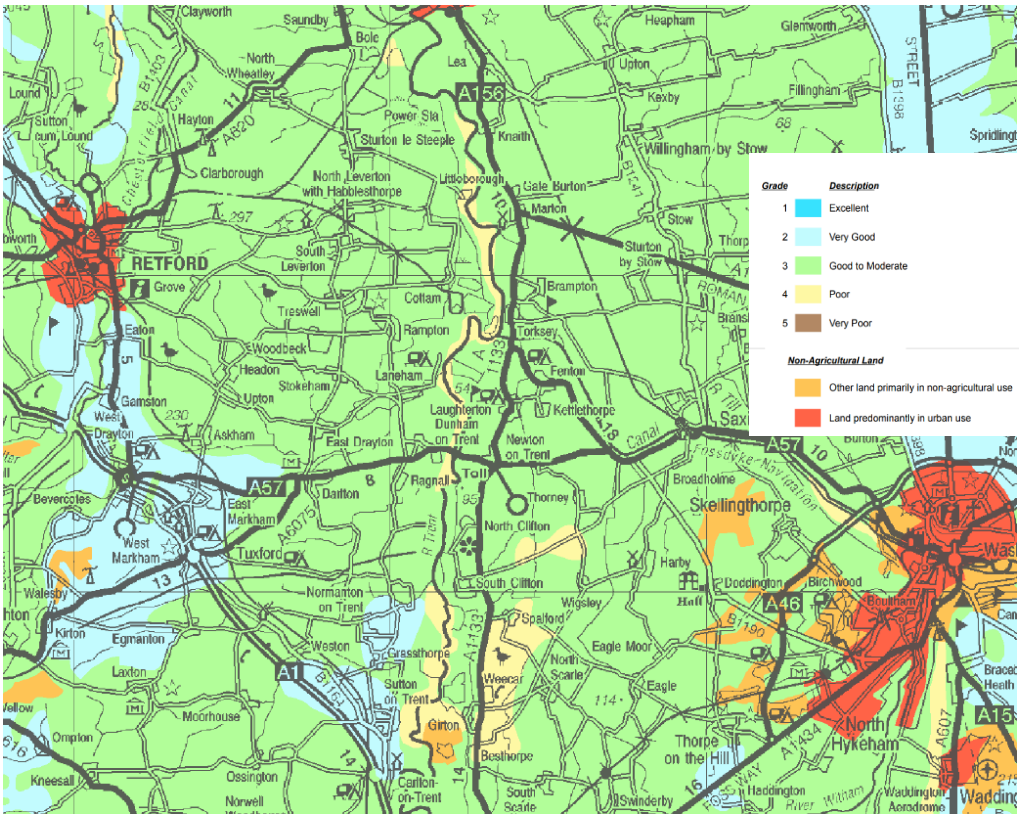

Figure 8.4.2 – Natural England Agricultural Land Classification Map Extract

11.1.17 Natural England produce Predictive Best and Most Versatile Agricultural Land maps to help identify the likelihood of BMV agricultural land (Agricultural Land Classification Grades 1, 2, and 3a). Defra also produce maps showing the likelihood of encountering BMV which divide land into "high (>60% area BMV)", "medium (20 - 60% area BMV)" and "low (<20% area BMV)" likelihood categories.

11.1.18 According to the provisional ALC mapping (Defra and Natural England), this area (i.e. in proximity to the point of connection) of Nottinghamshire and to a lesser extent, Lincolnshire, has a mixture of largely Grade 3 with small pockets of Grade 2 and Grade 4, making complete avoidance of BMV impossible for development of the scale proposed (as shown in Figure 8.4.2 above). The Natural England predictive mapping also shows large areas of the Order Limits as having a low-to-moderate likelihood probability of BMV (as shown in Figure 8.4.1 above), with one swathe of high likelihood between North and South Clifton (which was subsequently removed so only a small parcel remained). On this basis, the Order Limits was considered favourable, based on predictive mapping at site selection stage and avoided the swathes of Grade 2 to the east and west. Consideration was given as to whether alternative land could be found with less impacts on agricultural land in proximity to the High Marnham Substation. However, from the published information and professional judgement of the technical soils specialists the same type of grading is found throughout much of Lincolnshire and

Nottinghamshire and so sites further from the point of connection would be likely to have very similar soil characteristics.

BMV – Design Development

11.1.19 The Applicant's understanding of the land in and around the now Order Limits was also supplemented by initial conversations with the landowners regarding the quality and viability of the Order Limits for agriculture. This understanding helped direct the availability of the land within the area and also subsequent site selection at a micro level during design development.

11.1.20 To determine the precise agricultural grade of the Order Limits, an ALC survey was undertaken in 2023, at a semi-detailed level. The method of survey was agreed with Natural England and is in accordance with technical advice note TIN049.

11.1.21 This survey found that land that is classified as BMV land (ALC grade 2 and grade 3a) occupies a total area of 660.9ha, which is 53.3% of the land within the Order Limits. Of the land which is defined as ecological enhancement areas, 42% of this is identified as BMV, with 58% non-BMV. For areas allocated for substations and BESS sites, 81% of this land is identified as BMV, with 19% non-BMV. In regard to solar areas, 57% of this land is identified as BMV, with 43% non-BMV.

11.1.22 The ALC survey showed that more of the Site is Grade 2 and 3a than originally predicted based on the Defra and Natural England mapping, however, this was considered by the technical specialists to be indicative of the prevailing soil characteristics of the area and it was unlikely that this could be reduced further through bringing in other land. The landowners had also already put forward those fields that they considered had lower yields. Furthermore, options for a smaller solar farm which used less BMV land were not considered further as this would have reduced the capacity and not optimised the available grid connection, which is not consistent with national policy. This is particularly the case given that policy is clear that BMV should not be predominant factor driving site selection.

11.1.23 At a site design level, the Applicant has sought to, where possible, reduce the use of BMV land, however, due to the nature of the land quality within the Order Limits and the general classification both locally and at a wider scale in Nottinghamshire and Lincolnshire it has not been possible to avoid it entirely. The steps which the Applicant has taken therefore to avoid, reduce and subsequently mitigate impacts on BMV at a site design level are explained below.

11.1.24 The **Design Approach Document [EN010159/APP/5.8]** sets out Project Principles which have framed the development of the design of the Proposed Development to date. The principle of relevance include:

- Protect and enhance places of value.

11.1.25 Page 64 of the **Design Approach Document [EN01059/APP/5.8]** explains in greater detail how design measures were incorporated and changes were made during design development in relation to the Proposed Development. It explains that based upon initial survey results, 84 acres of BMV land was removed from the redline between non-statutory and statutory consultation. This specifically focused on the removal of land between North Clifton and South Clifton.

11.1.26 Following on from the above, a further 161 acres of BMV land was removed from the redline between statutory consultation and submission. This included the following land:

- 225 acres located West of Thorney
- 118 acres located South West of Newton upon Trent
- 12 acres South West of North Clifton
- 6 acres between North Clifton and South Clifton

11.1.27 Regarding the location of the substation and Battery Energy Storage System associated with the Proposed Development, consideration of land within the extent of potential flooding, plus the 300m offset from residential dwellings adopted by the project to embed noise mitigation and minimise visual effects, resulted in only a few viable locations. These options were taken forward to statutory consultation which received feedback that it would be necessary to locate the western substation and ESS facility north of the disused railway. Therefore, the only option to progress with this location was to utilise some BMV land for these elements of the Proposed Development.

11.1.28 Overall, the design changes set out above show how the Applicant has sought to avoid and reduce the amount of BMV used for Solar (and other hard infrastructure) development. While recognising the amount of BMV included, it has not been possible to remove all BMV land from the Order limits or from the installation of Solar PV Arrays. To do so would reduce renewable energy generation capability in a location where there is available grid capacity, and at a time when the need for such development is urgent. This is a critical point and is consistent with Paragraph 2.10.30 of EN-3 which explains that solar farm developments are not prohibited on 'best and most versatile' agricultural land and that "it is recognised that at this scale, it is likely that applicants' developments may use some agricultural land". This point is further demonstrated by the limited availability of poorer grade land in the areas surrounding the Site.

11.1.29 It is also important to recognise that BMV is one of several factors which influence the way design develops in the same way it is one of several criteria used in site selection. As set out earlier in this section, EN-3 is very clear that land type should not be a predominating factor in site selection. The Applicant considers this is relevant in both the site selection and design development process. Neither EN-1

nor EN-3 place a higher policy emphasis on the use of agricultural land in comparison to other environmental considerations but require the Applicant to justify its use.

11.1.30 The other critical factor in the consideration of impacts on BMV is the degree of impact which it is deemed to have. The Proposed Development has an operational life of 60 years after which time all hard infrastructure above ground and below ground to a depth of 1metre, with the exception of cabling, would be removed from the land (as secured within the **oDEMP [EN010159/APP/7.6]**). For the vast majority of the Order Limits, this equates to the removal of solar PV arrays which are mounted on narrow piles and which have no demonstrable impact on the quality or condition of the ground below.

Impacts on BMV Land

11.1.31 As set out above, the Applicant has sought to avoid and reduce the amount of BMV land used for hard infrastructure associated with the Proposed Development. However, given the context of the quality of land locally and within the Order Limits it has not been practicable to remove all BMV. 660.9ha of the Order Limits is classified as BMV land (ALC grade 2 and grade 3a) which equates to 53.3% of the surveyed land within the Order Limits, and 46.9% of the whole Order Limits. This land will be used for ecological enhancement and mitigation, while also accommodating solar PV arrays or associated infrastructure. This is land which will not be available as an agricultural resource, aside from potential use as grazing land for a period of approximately (excluding construction and decommissioning) 60 years.

11.1.32 Table 8.4.1 below, sets out other DCO solar developments and their associated use of BMV (within order limits) in quantum and as a percentage of the overall site. This demonstrates a range of values mainly below that of the Proposed Development. Of the consented schemes, Heckington Fen Solar Farm is the most similar in terms of percentage BMV. The SoS in their decision letter ascribe the loss of this resource/impact on BMV moderate negative weight in the planning balance while acknowledging the applicant had sufficiently justified the use of the BMV within the proposed development.

Table 8.4.1 – Summary of BMV Land in Solar DCO

	Site Size (ha)	BMV (ha)	BMV (%)
Cottam	1180	50	4
Gate Burton	652	80	12

Heckington Fen	524	257	49
Little Crow	225	37	16
Longfield	637	265	41
Mallard Pass	852	360	42
Sunnica	981	37	5
West Burton	758	200	26

11.1.33 In this context, the impact of the temporary use of land for the purposes of hard infrastructure, **ES Volume 2, Chapter 8, Land and Soils [EN010159/APP/6.8]** of the ES reports that there would be the following residual significant adverse effects on soil and agricultural land:

- Impact on physical properties of soil, or on ALC grade of soil, or impact on soil quality due to damage to field drains during both construction and decommissioning; and
- Impact on availability of agricultural land during operation.

11.1.34 In the context of the Proposed Development's impact on the wider BMV resource, the Applicant notes that in England, agricultural land represents between 69-70% of the total land within the country. Natural England estimates that around 42% of agricultural land within England is of BMV quality (with a roughly even split of 21% as Grades 1 and 2 and 21% Grade 3a) with the proportion of BMV in Lincolnshire rising to 71.2%, and in Nottingham being 49%, which are both significantly above the national average. Therefore, in the context of the county, BMV land is abundant.

11.1.35 The 'county scale' BMV soils maps available are the Provisional ALC maps which do not differentiate between Grade 3a and Grade 3b. Therefore, accurately estimating the BMV for Lincolnshire and Nottinghamshire is difficult. As such, as part of the planning process, a review of the available maps and the other cumulative solar DCOs progressing within Lincolnshire and Nottinghamshire has been undertaken to provide a consistent number against which to assess; some refer to total agricultural land (e.g. Heckington Fen Solar Park) whilst others

provide an estimate of BMV from the mapping available (e.g. Beacon Fen Energy Park).

11.1.36 In this regard the Applicant considers that the significant benefit associated with the delivery of BNG; the nature of the permanent loss to green and not hard infrastructure and the resulting significant beneficial impact on the quality of the soil; the relative negligible quantity of impact on the wider BMV resource in Lincolnshire and Nottinghamshire, and; the Applicant's compliance as far as practicable in applying the mitigation hierarchy and the weight that is associated with a CNP project, provides robust justification for the impact in terms of that required by way of paragraph 5.11.34 of the EN-1.

11.1.37 It is also noted that there are no national or local planning policies, or policies in other areas of legislation, that require agricultural land (BMV or otherwise) to be farmed, or to be farmed in a particular way (e.g. arable cropping, although it is recognised that the grading of land relates to the flexibility of the soil resource to grow particular crops). Indeed, agri-environmental and farm support generally provide economic recompense for farming land less intensively and for providing environmental benefits. Therefore, there is no guarantee, as such, that the land would be used for productive arable use should the Proposed Development not be granted consent.

Soil Impacts and Management

11.1.38 Paragraph 5.11.13 of EN-1 states that applicants should identify any effects and seek to minimise impacts on soil quality, taking into account any mitigation measures proposed. Paragraph 5.11.14 states that "Applicants are encouraged to develop and implement a Soil Management Plan which could help minimise potential land contamination".

11.1.39 The Natural England Technical Information Note TIN049 (2012) also provides guidance related to land quality and soils management in relation to non-agricultural uses. It notes that "Non-agricultural afteruse, for example for nature conservation or amenity, can be acceptable even on better quality land if soil resources are conserved and the long-term potential of best and most versatile land is safeguarded by careful land restoration and aftercare."

11.1.40 An **Outline SMP [EN010159/APP/7.10]** has been prepared as part of the DCO Application and agreed with Natural England. A SMP will be secured pursuant to the **Draft DCO [EN010159/APP/3.1]** as a requirement, which must be substantially in accordance with the **Outline SMP [EN010159/APP/7.10].** The **Outline SMP [EN010159/APP/7.10]** seeks to identify the importance and sensitivity of the soil resource and to provide specific measures for the management of the soil resource to maintain the physical properties of the soil within the Order Limits and to ensure that there is no significant adverse effect on the soil resource as a result of the Proposed Development. **The Outline SMP [EN010159/APP/7.10]** provides detail on the following during the construction, operation (including maintenance) and decommissioning phases of the Proposed Development:

- A description of the soil types and their resilience to being trafficked;
- Measures for soil handling;
- Description of works and how soil damage will be minimised; and
- Monitoring measures for soil condition and criteria against which compliance will be assessed.

11.1.41 Therefore, impacts upon soil structure and quality during the construction and decommissioning phases of the Proposed Development are limited. However, in terms of a benefit, the soil quality will be protected and improve through the operational phase in a way which will permit unrestricted agricultural use to be facilitated after decommissioning.

11.1.42 The construction process for the solar PV arrays involves piling support poles into the ground. Importantly, the land is not sealed. The legs occupy a small area and are inserted into the ground under pressure. These legs are lightweight, profiled metal legs and are inserted into the ground using a pneumatic hammer action. There is no requirement for any lifting or mixing of soil, and once driven in and the panels have been connected, there is no requirement for trafficking. The process is similar to that of knocking in a fence post and, consequently, the soil around the legs is not disturbed and moves laterally once the post is knocked in. It is important to recognise that this does not result in any change to the soil profile and that the soil resource, and the inherent land quality, is not affected. This is consistent with paragraph 5.11.13 of EN-1 which requires applicants to seek to minimise impact on soil quality.

11.1.43 In terms of the operational (and maintenance) phase of the Proposed Development, land management around and beneath the solar panels is proposed to be used for ecological mitigation and enhancements, which could include planting (including establishment of grassland and wildflowers), which would help to reduce soil degradation and erosion. However, it should be noted that while the conditions which would allow for grazing would be delivered, the Applicant is unable to make a commitment that grazing will occur as the usual process would be for a farmer with animals to graze to approach a landowner to seek agreement to graze animals on their land, not the other way around.

11.1.44 Due to the nature of the Proposed Development as anticipated by EN-1 paragraph 3.1.1, ES Volume 2, Chapter 8, Land and Soils [EN010159/APP/6.8] has assessed that it is likely for some very high sensitivity BMV agricultural land (grades 1 and 2) that there will be significant adverse residual effects. These adverse effects are resultant from the compaction and subsequent deterioration, from activities such as piling, in the highly sensitive BMV agricultural land during the construction of the Proposed Development.

11.1.45 For a development of this scale, and in this part of the country, it is considered impracticable to locate on land that is entirely outside of very high sensitivity BMV agricultural land, however the Proposed Development has been able to entirely avoid Grade 1 ALC. The Site Selection Report contained in Appendix 1 of this Planning Statement has explained how the Proposed Development has reasonably avoided BMV agricultural land. Where found to be unavoidable, the implementation of management plans, provided for by the **Outline SMP [EN010159/APP/7.10]** and **Outline CEMP [EN010159/APP/7.4]** will effectively manage the significant adverse effects as far as reasonably practicable. It is considered that the site selection approach and mitigation measures are appropriate, with some residual significant adverse effects recognised and provided for by EN-1 paragraph 3.1.2.

Groundwater

11.1.46 Paragraph 5.16.1 of EN-1 notes that "*infrastructure development can have adverse effects on the water environment, including groundwater*." As a result of this, it is asked that applicants consider protective measures to control the risk of pollution to groundwater beyond those outlined in River Basin Management Plans and Groundwater Protection Zones as per paragraph 5.16.6 of EN-1.

11.1.47 In relation to the potential for impact on groundwater from trenchless works, piling activities and earthworks, the groundwater is deemed to have a medium importance where there are secondary aquifers and where groundwater abstraction points are present. If required, a piling risk assessment will be undertaken before the start of construction works, as detailed in the **oCEMP [EN010159/APP/7.4]**. This will minimise impacts on groundwater as a result of piling activities.

Embedded Mitigation

11.1.48 Several measures have been taken to reduce the amount of BMV agricultural land within the Order Limits where Solar PV arrays and supporting infrastructure are located. Further measures have been taken to ensure the soil resource of the BMV agricultural land is preserved, as set out below and within **ES Volume 2, Chapter 8: Land and Soils [EN010159/APP/6.8]**.

11.1.49 While the search area for the Order Limits, as set out within the **Site Selection Report** at Appendix 1 of this document, focussed on non-BMV agricultural land, it has not been possible to remove all BMV agricultural land from the Order Limits, or from the areas solar PV arrays and related infrastructure are to be sited. To do so would reduce the renewable energy generation capability in a location where there is available grid capacity, at a time when the need for such development is a priority, as confirmed in the **Statement of Need [EN010159/APP/7.1]**. This is consistent with Paragraph 2.10.31 of EN-3 where it is recognised that at this scale, it is likely that applicants' developments may use some agricultural land.

11.1.50 **ES Volume 2, Chapter 8: Land and Soils [EN010159/APP/6.8]** sets out at paragraph 8.6.29 that the areas of land beneath the Solar PV panels and within the field margins will be used for ecological mitigation and enhancements, to including planting of high biodiversity value grassland.

11.1.51 Where not used for solar PV development, the use of non-BMV agricultural land has been prioritised for the areas of environmental mitigation and enhancement, where reasonably practicable, and is an embedded mitigation measure. This aims to reduce the impact upon and enhance the high-quality BMV agricultural land and ensure the retention and best use of available resources where availability allows. This is secured by the **Outline SMP [EN010159/APP/7.10], Outline CEMP [EN010159/APP/7.4]** and **Outline DEMP [EN010159/APP/7.6].**

Summary

11.1.52 The Site Selection Report at Appendix 1 to this Planning Statement outlines the process in locating the Order Limits in proximity to the available capacity at the proposed High Marnham Substation. A review of provisional and ALC mapping (Defra and Natural England) was undertaken and the Applicant took into account agricultural land quality when considering land within the search area.

11.1.53 ALC surveys were then undertaken to confirm land grades across the Order Limits, and the results were taken into account to reduce the potential impact on BMV agricultural land.

11.1.54 In line with paragraph 2.10.29 of EN-3, some areas of BMV agricultural land are required to deliver the Proposed Development, as noted in the Site Selection Report at Appendix 1 to this Planning Statement. Due to the nature of the Proposed Development and construction methods, which will include adherence to a detailed SMP (following on from the submitted **outline SMP [EN010159/APP/7.10]**), impacts upon the soil resource are minimised. The land management regimes will not adversely affect soil quality, soil health, or land quality and there is the potential for overall benefits to soils. The potential benefits are a result of arable soils reverting to pasture, and include improved soil structure from long-term grassland allowing build-up of organic matter, reduced vulnerability to erosion by wind or water and enhanced soil micro bacterial activity.

11.1.55 Post-decommissioning, agricultural land management could resume following removal of the above ground solar infrastructure.

11.1.56 EN-3 paragraph 2.10.29 states that the development of large-scale solar PV is not prohibited on agricultural land and that agricultural land classification should not be a predetermining factor in the consideration of Development Consent applications. However, as a requirement of EN-1 and EN-3, justification for the use of agricultural land for the purposes of energy generation, specifically solar PV in EN-3, is required. The Site Selection Report at Appendix 1 to this Planning Statement and **ES Volume 1, Chapter 4: Alternatives and Design Evolution**

[EN010159/APP/6.4] sets out the process that determined the extent of the Order Limits, areas excluded from selection and the justification for such decisions.

11.1.57 The site selection process, considered suitable areas for solar development within a 10 km search area radius around the High Marnham Substation, in order to minimise the risk of environmental impact, disruption to multiple landowners, challenges with crossings, process loss, cost and delay of a longer cable route. The evidence provided in the Site Selection Report demonstrates that the Order Limits represent the most appropriate area for a development of the required scale to make best use of available grid capacity.

11.1.58 For national, and local renewable energy needs to be met, some BMV agricultural land is required to be temporarily used for the delivery of solar electricity as without it, the electricity output would not fulfil the available grid capacity at High Marnham Substation and would be an inefficient use of land from an energy generation perspective. Therefore, with regard to agricultural land, the Proposed Development is considered acceptable pursuant to EN-1, EN-3, EN-5, NPPF and local planning policy.

12. Buried Heritage

12.1.1 This section reviews the Proposed Development in the context of planning policy for buried heritage. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6]** which provides a comprehensive assessment.

12.1.2 Paragraph 5.9.11 of EN-1 states that "*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.*"

12.1.3 Paragraph 5.9.33 of EN-1 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.*"

12.1.4 Paragraph 2.10.114 of EN-3 states that *"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."*

12.1.5 Paragraph 216 of the NPPF states that *"the effect of an application on the significance of a non - designated heritage asset should be taken into account in determining the application. 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."*

12.1.6 Archaeological trial trench evaluation has been undertaken for the Proposed Development and potential impacts to buried archaeological features confirmed as being present within the Order limits is included within **ES Volume 3, Chapter 9: Buried Heritage [EN010159/APP/6.9].** The trial trench report is submitted alongside the application as **ES Volume 3, Appendix 9.5 [EN010159/APP/6.21]**.

12.1.7 The Proposed Development design has been carefully considered to avoid, reduce, or mitigate potentially significant effects on buried heritage and archaeology assets as set out in **Design Approach Document [EN010159/APP/5.8]**. This resulted in a Proposed Development that avoids direct physical impact on any designated heritage assets, such as no development being proposed on the two scheduled monuments as stated in Table 32 of the **Outline Construction Environmental Management Plan [EN010159/APP/7.6]**. Even with mitigation measures implemented, **ES Volume 3, Chapter 9, Buried Heritage [EN010159/APP/6.9]** concluded that there are still some moderate

adverse effects (significant in EIA terms) during the construction and decommissioning phases. However, to try and reduce this level of impact, there have been a number of setbacks from designated heritage assets introduced such as:

- Limited development is proposed on or directly adjacent to the two Scheduled Monuments in the vicinity of the Site (the Roman Vexillation Fortress Scheduled Monument and Whimpton Moor Scheduled Monument). Substantial 50m setbacks around these designated heritage assets are incorporated into the design. The embedded buffer would also mitigate or remove any adverse effect on any known and unknown buried heritage assets included in the buffer areas;

- Substantial setbacks and the removal of developable land around:

    - North Clifton (approximately 100m to Work No. 1);

    - South Clifton- (approximately 500m to Work No. 1);

    - To the south of Newton-on-Trent (approximately 100m to Work No. 1);

    - To the north, south and west of the Church of St Gregory in Fledborough (approximately 160m to Work No. 1);

    - To the east and west of Ragnall (approximately 150m to Work No. 1);

    - West of Thorney (approximately 800m to Work No. 1); and,

    - The area north of High Marnham (High Marnham Substation) is proposed only for the cable routing for the Grid Connection, but no further development is expected in this area.

Summary

12.1.8 Regarding the potential impacts upon buried archaeological remains, paragraph 5.9.33 of EN-1 and Paragraph 216 of the NPPF are engaged. The policies state that a balanced judgement is required, considering the scale of any harm or loss of significance to non-designated heritage assets. Paragraph 9.5.25 of **ES Volume 3, Chapter 9, Buried Heritage [EN010159/APP/6.9]** confirms that the potential harm to buried archaeological will be subject to an archaeological mitigation strategy and this is secured by a requirement to the draft DCO.

12.1.9 An Archaeological Clerk of Works (ACoW) will be appointed for the Construction phase of the Proposed Development who will be reviewing and monitoring all

works on the Site to ensure that the potential harm is minimised where possible. Requirements will be set out in the Overarching Written Statement of Investigation (OWI), and compliance with measures regularly recorded via an appropriate method to be determined in the detailed Construction Environmental Management Plan.

12.1.10 The summary of the assessment is set out in **Table 9.7, ES Volume 3, Chapter 9, Buried Heritage [EN010159/APP/6.9]**. The Proposed Development is considered to comply with relevant policy aims and intentions in relation to cultural heritage matters.

13. Cultural Heritage

13.1.1 This section reviews the Proposed Development in the context of planning policy for cultural heritage. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

13.1.2 Paragraph 5.9.10 of NPS EN-1 states that *"as part of the ES, 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".*

13.1.3 Paragraph 5.9.11 goes on to state "*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*".

13.1.4 Similarly, NPPF paragraph 200 requires the Applicant to describe the significance of any heritage assets affected by a proposal, including any contribution made by their setting, whilst also providing a level of detail which is proportionate to the assets' importance and no more than is sufficient to understand the proposal's potential impacts. Paragraph 199 states that when considering the impact of the proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. Paragraphs 206-208 set out how levels of harm to designated heritage assets should be considered and weighed, with paragraph 209 setting out the process for non-designated heritage assets.

13.1.5 The NPPF makes clear that where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, such harm should be weighed against the public benefits of the Proposed Development.

13.1.6 NPS EN-1 requires Applicant to carefully consider their proposals impacts on the historic environment. The NPPF makes clear that where a proposal will lead to less than substantial harm, such harm should be weighed against the public benefits of the Proposed Development. This is particularly noted at paragraph 5.9.19 of EN-1 which sets out the importance given to harm caused by loss of significance and the level of justification required for varying degrees of harm to designated heritage assets and their setting.

13.1.7 Finally, under NPS EN-5, Applicant must also take into account Schedule 9 of the Electricity Act 1989 which requires Applicant to have regard for the desirability of preserving historic or archaeological interests.

13.1.8 In accordance with paragraph 5.9.10 and 5.9.11 of EN-1, EN-5 and the NPPF, **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]** includes a Cultural Heritage Assessment of the construction, operation, and

decommissioning phases of the Proposed Development, encompassing assessment of built heritage and the historic landscape.

13.1.9 **ES Volume 2, Chapter 10 Cultural Heritage [EN010159/APP/6.10]** confirms that the only known designated heritage asset within the Order Limits is the Scheduled Monument (SM) of Whimpton Moor Medieval Village and Moated Site, Ragnall (NHLE: 1017567) which is partially located within the Order Limits because it forms part of a larger field which would not be viable to split, however buffers from the built development have been embedded, and it is excluded entirely from the developable area. In terms of designated heritage assets and non-designated heritage assets within a 2km study area, the following has been identified:

- There are 3 further Scheduled Monuments within the 2km study area (outside of the Site). This includes; Roman Vexillation Fortress, Two Roman Marching Camps and a Royal Observers Corps Monitoring Post, Newton on Trent (NHLE: 1003608); Ringwork at Kingshaugh Farm, East Markham (NHLE: 1018619); and Cross in St Peter and St Paul's Churchyard, Kettlethorpe (NHLE: 1018289).
- There are 3 Grade I listed buildings within the 1km study area (outside of the Site). This includes; Church of St Gregory in Fledborough (NHLE: 1045689), Church of St Wilfred in Low Marnham (NHLE: 1276534) and Church of St Oswald in Dunham-on-Trent (NHLE: 1370101). There is 1 Grade I listed building in the 2km study area: Church of St Peter in East Drayton (NHLE: 1212946).
- There are 6 Grade II* listed buildings within the 1km study area (outside of the Site), all of which are churches, including: Church of St George in North and South Clifton (NHLE: 1046053), Church of St Leonard in Ragnall (NHLE: 1233804), Church of St Giles in Darlton (NHLE: 1212465), Church of St Helen in Thorney (NHLE: 1302452), Church of St Matthew in Normanton (NHLE: 1233792) and Church of St Peter in Newton-on-Trent (NHLE: 1064109). There is 1 Grade II* listed structure within the 2km study area: Gateway at Kettlethorpe Hall (NHLE: 1147172).
- There are 61 Grade II listed buildings within the 1km study area (outside of the Site), nearly all of which are collected within the settlements and are generally former farmhouses, halls and cottages. Amongst these, there are also 3 war memorials and several structures associated with churches (i.e. headstones and lychgates). There are 17 Grade II listed buildings within the 2km study area.
- There is 1 Conservation Area within the 1km study area: South Clifton, which contains 8 of the Grade II listed buildings. There is 1 Conservation Area within the 2km study area: East Drayton, which contains the Grade I listed Church of St Peter and 5 of the Grade II listed buildings. All are outside of the Site.

- There are 81 non-designated heritage assets (above ground heritage assets only) within a 1km study area (outside of the Site), the largest of these being Fledborough Viaduct. Within these, there are 4 Unregistered Park & Gardens ('UPG').

13.1.10 Section 4.7 of NPS EN-1, and Section 2.5 of NPS EN-3 refers to Criteria for "Good Design" for Energy Infrastructure, and the importance of responding sensitively to context, including heritage assets. In this context, it is important to consider the mitigation measures and bespoke design solutions that have been implemented and note that the site selection exercise sought to avoid high-value heritage assets, where possible. Given the land required to deliver the Proposed Development and its associated benefits, the Scheduled Monument (SM) of Whimpton Moor Medieval Village and Moated Site, Ragnall (NHLE: 1017567) was not fully excluded from the Order Limits, (the reason for the inclusion of this designated asset is set out in paragraph 8.2.21, above). However, the very limited number of assets within the Order Limit and ability of the project to implement mitigation around those that do exist within and in proximity to the Order Limits indicates a robust site selection process.

13.1.11 Paragraph 5.9.13 of EN-1 encourages applicants, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment. Paragraph 2.10.116 of EN-3 states applications should take account of the results of historic environment assessments in their design.

13.1.12 EN-1 paragraph 5.9.25 sets out the presumption in favour of conservation and, where appropriate, enhancing the significance of heritage assets.

13.1.13 In response to paragraphs 5.9.13 – 5.9.15 and 5.9.25 of EN-1, opportunities for enhancement in relation to cultural heritage have been embedded into the design, such as offsets from the Whimpton Moor Medieval Village and additional planting to filter views across the River Trent, and the preservation of the openness allowing views to and from the Grade I Listed Church of St Gregory in Fledborough. Further, historic assets, including those scoped into the cultural heritage assessment in **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]**, have been conserved through careful consideration of the layout of the Proposed Development, and substantial setbacks which allow the existing characteristics of their setting to prevail.

13.1.14 Alongside the proposed enhancement opportunities to physical heritage assets, retention and management of landscape features, including setbacks, and tree and native vegetation planting strengthening as detailed in the **Outline Landscape and Ecology Management Plan [EN010159/APP/7.7]** would minimise the effect of the Proposed Development on the contribution made by setting to the significance of designated and non-designated heritage assets within the Order Limits.

13.1.15 Paragraph 5.9.9 of EN-1 sets out the process for considering the impacts of proposed developments upon the significance of heritage assets.

13.1.16 During operation, the siting of solar panels within the Order Limits has the potential to result in a change to the setting of surrounding designated and non-designated assets. However, the key elements of the asset's value, derived from their surviving historic fabric and form, and from where they are experienced, would be preserved.

13.1.17 As set out above, the Applicant has sought to approach cultural heritage in a positive and proactive way. From an early stage, key design moves were made to ensure that Solar PV arrays would not be located in places where there were cultural heritage sensitivities both directly and in terms of setting. To summarise, the measures proposed include:

- Proposed additional screening;
- Amendments to the layout of the Proposed Development, including removal of solar PV modules from notably sensitive areas which contribute to the significance of heritage assets;
- An **oCEMP [EN010159/APP/7.7]** has been prepared to mitigate the potential adverse effects during the Construction Phase;
- The **oLEMP [EN010159/APP/7.10]** sets out key measures to protect and enhance landscaping throughout the Site, including protecting and retaining existing vegetation and trees, where relevant. Existing vegetation along the boundary will be retained and managed where practicable to aid screening and reduce visual presence of the Proposed Development in the settings of heritage assets;
- Substantial setbacks and removal of developable land around North Clifton / South Clifton to ensure that the Proposed Development does not interrupt the connection between the settlements afforded by gaps and glimpsed views, including preserving the visual and perception connection between Church of St George The Martyr (Grade II*) and both settlements;
- No development is proposed on the part of the Whimpton Moor Scheduled Monument that is within the Order Limits and most of this Scheduled Monument is excluded with setbacks based on an understanding of the topography here to reduce the potential visual and experiential effects of development in the setting of the Monument;
- The land featuring the Roman Vexillation Fortress Scheduled Monument and its surroundings has also been removed from the Site;

- Setbacks incorporated in Fledborough to the north, south and west of the Church of St Gregory (Grade I listed). This is to manage the presence of the Proposed Development in the setting of the Church and neighbouring Manor House (Grade II listed), including mitigating any visual impact from the approach to these assets and in views from public footpaths and Fledborough Viaduct;

- Setbacks incorporated to east and west of Ragnall to reduce visual presence of development in settings of heritage assets here. Setbacks to the west are based on understanding of topography and views out from the Church of St Leonard (Grade II* listed). And setbacks to the east approximately follow the line of former historic field boundaries (which would be 'reinstated');

- Substantial setbacks and removable of developable land to the south of Newton on Trent and to west of Thorney to reduce visual impact and potential effects on settings of heritage assets in these locations;

- Tree and native vegetation planting (c.3m in height and 2-3m in width) to be included at sensitive edges of the Site to manage potential visual (and to some extent experiential) effects of the Proposed Development, including potential for glint and glare, within the settings of heritage assets. This includes to east and west of Ragnall assets, to south of Whimpton Moor Scheduled Monument, to west and south of Fledborough assets and to north-east of Skegby Manor (Grade II listed);

- Control of lighting and noise during operational phase to minimise intrusion in the context of heritage assets;

- Beyond the cable routing (below ground) for the Grid Connection, the area north of High Marnham (High Marnham Substation) is not proposed for any further development. This will reduce or avoid any effects to heritage assets in High Marnham and Low Marnham;

- The proposed eastern and western substation locations are at a distance from designated heritage assets to reduce intrusive visual presence in their settings, including from sensitive views and key approaches;

- The cabling between the east and west sides of the Site across the River Trent will be undertaken by trenchless crossing (such as Directional Drilling) which is considered to have a lesser impact on built heritage assets due to its lack of visual presence in their settings once operational. The option to route cabling via Fledborough Viaduct is no longer being pursued, therefore there would be no direct alterations to the Viaduct; and

- An **oDEMP [EN010159/APP/7.9]** has been prepared to mitigate the potential adverse effects during the Decommissioning Phase

13.1.18 During operation the siting of solar PV arrays within the Order Limits has the potential to result in a change to the setting of surrounding designated and non-designated assets. However, the key elements of the asset's values, derived from their surviving historic fabric and form, and from where are experienced, would be preserved. Mitigation measures have been embedded into the design and layout to reduce any potential effects and include the retention of existing vegetation screening and the inclusion of open space to preserve the settings of heritage assets.

13.1.19 In summary, **ES Volume 2, Chapter 9: Cultural Heritage [EN010159/APP/6.10]** states that there are no significant residual effects arising from the Proposed Development from a cultural heritage perspective.

Substantial Harm Assessment

13.1.20 EN-1 requires applicants to carefully consider their proposal's impacts on the historic environment. The NPPF makes clear that where a proposal will lead to less than substantial harm, such harm should be weighed against the public benefits of the proposal.

13.1.21 EN-1 paragraph 5.9.27 states "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".

13.1.22 EN-1 requires the Applicant to carefully consider their proposals' impacts on the historic environment. EN-1 paragraph 5.9.32 states "*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, including, where appropriate securing its optimum viable use*". EN-1 continues at 5.9.33 to state "*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".*

13.1.23 Finally, EN-1 discusses at paragraph 5.9.11 that "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."

13.1.24 NPPF Paragraph 207 requires an application to describe the significance of any heritage asset affected by development applications, including any contribution made by their setting. Paragraph 212 states that when considering the impact of the proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. Paragraphs 213-215 set out how levels of harm to designated heritage assets should be considered and weighed, with paragraph 216 setting out the process for non-designated heritage assets. The detailed policy response to these paragraphs is provided in Table 4 of **Policy Compliance Document [EN010159/APP/5.6]**.

13.1.25 This section draws upon the information presented in the **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10**]. Where a significant impact/effect has been identified in the EIA and there is less clarity on the potential extent of the harm this section explores this further.

13.1.26 Legislative and policy requirements for the assessment of effects on heritage assets require the assessor to establish whether the value (heritage significance) is preserved, better revealed/enhanced or harmed as a result of the Proposed Development.

13.1.27 There are two ways in which the Proposed Development can affect heritage assets:

- by physical changes to the fabric, use and visual appearance of designated or non-non-designated heritage assets (known as direct effects); and

- by changes to the setting of designated or non-designated heritage assets in the vicinity (known as indirect effects). The approach to assessing setting follows the five-step approach set out in Historic England's GPA3.

13.1.28 As such, the magnitude of change is a combination of (i) the size and scale of the potential change; and (ii) the duration of the change and its reversibility i.e. effects during the construction phase are likely to be temporary effects, whereas effects during operation would span for the duration of the Proposed Development. The magnitude of change can be high, medium, low, negligible or nil. The consideration of magnitude of change takes into account environmental measures embedded in the proposed design.

13.1.29 Table 10.2: Magnitude of Change in **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]** provides criteria for classifying the magnitude of impacts to cultural heritage. 'High' impacts are considered to be 'substantial harm' and anything less than 'high' is considered as being 'less than substantial harm'. In addition Table 10.3 Significant Effect in **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]** provides criteria for assessing if the magnitude of

change identified will have a Major, Moderate, Moderate/Minor or Minor significant effect.

13.1.30 For the majority of assets, the effect presented in the Environmental Statement has been assessed as being not significant. No impacts of major or moderate magnitude have been identified to any designated heritage assets and as such, it is concluded that the harm caused to these assets falls within the less than substantial category. Where significant adverse effects have been identified at each stage, these have been set out below.

13.1.31 During construction and decommissioning phases, there would be likely significant adverse effects to Whimpton Moor Medieval Village (Scheduled Monument), Ragnall House (Grade II), Barn at Ragnall Stables (Grade II), Ragnall Hall and Attached Outbuildings (Grade II), Church of St Leonard, Ragnall (Grade II*), Church of St Gregory, Fledborough (Grade I), Manor House (Grade II), Roman Vexillation Fortress (Scheduled Monument), Skegby Manor and Pigeoncote (both Grade II) and Pigeoncote at Hall Farm (Grade II). Whilst significant, these effects would be temporary and reversible.

13.1.32 It is noted for the decommissioning phase, that whilst the effects would be similar to construction during the phase, it would likely be returning to an approximate baseline position by removing solar development from the setting of heritage assets. As such, while these would be adverse during the phase there would be some temporary adverse effects during the decommissioning that are similar to those occurring during construction, the outcome of this phase would likely remove any adverse effects that have arisen during the operational phase.

13.1.33 During the operational and maintenance phase, there would be likely significant adverse effects in short and medium-term to designated assets in Ragnall, however these would be mitigated in the long term as the proposed planting becomes established. Long-term significant effects would only arise to Whimpton Moor Medieval Village (Scheduled Monument) and attempts have been made to further mitigate these effects through design changes since statutory and stakeholder consultation.

13.1.34 There would be no likely significant adverse effects to the remainder of designated assets within 1km radius of the Site, or to designated assets between 1-2km radius of the Site and Non-Designated Heritage Assets (NDHAs) within 1km of the Site. This is considered to be a result of an engaged consultation process and good design to mitigate effects where possible. It is noted that there would be some minor and negligible adverse effects to designated assets (Church of St Gregory, Manor House and Skegby Manor and Pigeoncote) which, whilst not significant, would equate to a low level of less than substantial harm to the contribution of setting to significance of these heritage assets. There would also be adverse effects (not significant) arising to several NDHAs which would require a balanced judgement to be taken, having regard for their significance and the scale of any harm or loss, as per NPS EN-1 paragraph 5.9.32. In this instance, only the Fledborough Viaduct and the NDHAs located in North Clifton have an identified

level of harm that is considered higher than negiligible or minor. However, the changes do not constitute substantial harm to the significance of the asset as a whole and therefore less than substantial harm to the significance of the asset as result of the Proposed Development is concluded. This should be considered acceptable, and the Applicant considers that the substantial benefits of the Proposed Development set out Section 4.1 and **Statement of Need [EN010159/APP/7.1]** outweigh the impact in this regard.

13.1.35 As such, the only further assessment on potential harm required is in relation to the Whimpton Moor Medieval Village (Scheduled Monument), the effects of which are considered to equate to a mid-high level of less than substantial harm to the contribution of setting to value. In addition, the following heritage assets would have an effect that equates to a low level of less than substantial harm, including: Church of St Gregory, Manor House and Skegby Manor and Pigeoncote.

13.1.36 This would need to be weighed against the public benefits of the Proposed Development, as per NPS EN-1 paragraph 5.9.32 and NPS EN-3 paragraph 2.3.8. 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. 'Effect' is a purely EIA term which balances the impact of a development on 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.

13.1.37 In terms of the Whimpton Moor Medieval Village (Scheduled Monument), the adverse impact arises from changes within the setting of the monument through siting of solar arrays in the wider agricultural surroundings that contribute to its significance. This impact has however been minimised as far as possible by embedded mitigation including offsets where there will be no built development and additional planting. A such, the medieval village will continue to be experienced in an immediate agricultural setting to the east, south and west noting the A57 directly to the north, and the relationship with the nearby buildings in Ragnall and farmsteads to the east and south will be retained. Despite the carefully designed mitigation, there remains an impact on the medieval village due to the introduction of modern infrastructure within a formerly agricultural landscape. The landscape will continue to be read as open fields; however, the modern infrastructure conflicts with the historic setting of the asset. In addition, while the development will be sufficiently set back from the monument where possible, the fields remain part of the setting of the asset as a whole. The character of the setting as individual fields will be maintained through the retention of existing boundaries, with development remaining low level. The development is also reversible, and, upon decommissioning the landscape can revert back to its current form.

13.1.38 In terms of the other heritage assets (Church of St Gregory, Manor House and Skegby Manor and Pigeoncote) it is noted that these are all located outside of the Order Limits and the site selection process, proposed planting and landscaping will provide mitigation against the potential effects of the development, and as set

out in the **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]** the effects can be reasonably equated with less than substantial harm, at the lower end of the spectrum.

13.1.39 Both the NPS EN-1 and NPPF require an assessment of harm to heritage significance. EN-1 and the NPPF further categorise that harm into 'substantial' and 'less than substantial'. The PPG which supports the NPPF heritage policies expects potential harm to designated heritage assets to be categorised as either less than substantial harm or substantial harm (which includes total loss) and that within each category of harm identified, the extent of the harm should be clearly articulated. In both of these occasions, as set out above and within **ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10]** the changes do not constitute substantial harm to the significance of the asset as a whole and therefore less than substantial harm to the significance of the asset as result of the Proposed Development is concluded. This should be considered acceptable, and the Applicant considers that the substantial benefits of the Proposed Development set out Section 4.1 and **Statement of Need [EN010159/APP/7.1]** outweigh the impact in this regard.

13.1.40 The Proposed Development is therefore considered to comply with relevant policy aims and intentions in relation to cultural heritage matters.

14. Landscape and Visual

14.1.1 This section of the Planning Statement reviews the Proposed Development within the context of the relevant planning policies relating to landscape and visual impacts. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

14.1.2 Paragraph 2.10.97 of EN-3 refers to the requirement for Landscape and Visual Impact Assessments (LVIA) and states that 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.

14.1.3 An LVIA of the construction, operation and decommissioning phases of the Proposed Development is included at within **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].**

14.1.4 Paragraph 187 of the NPPF states that planning policies and decisions should contribute to and enhance the natural and local environment, including by protecting and enhancing valued landscapes, recognising the intrinsic character and beauty of the countryside.

14.1.5 The **Design Approach Document [EN010159/APP/5.8]** and **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN010159/APP/6.4]** discuss the design process and the decisions that were made, including the project design principles identified to frame the design decisions, in order to minimise landscape and visual impacts and consider the LVIA analysis at **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].**

14.1.6 In response to paragraphs 2.10.93 and 2.10.98 of EN-3, Section 5.10 of EN-1 and local policy, considerable effort by the Applicant has been taken to minimise landscape and visual effects from the Proposed Development, including through the implementation of Biodiversity Enhancement Areas, new hedgerow, infilling of existing hedgerows, new wildflower areas and coastal grazing marsh. Detailed descriptions of the type and location of the biodiversity enhancement areas are contained within paragraph 11.5.10 of the LVIA at **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].**

14.1.7 Section 2.9 of EN-5 refers to landscape and visual impacts where it is encouraged to reasonably mitigate possible impacts of transmission infrastructure on visual and landscape amenity (such as effects resulting from cabling and substations). The Proposed Development addresses this via principally installing cabling underground and through screening of transmission infrastructure. Table 3 at **Policy Compliance Tables [EN010159/APP/5.6]** includes a response to EN-5 policies.

14.1.8 Paragraph 2.10.100 of EN-3 states that applicants 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".*

14.1.9 Paragraph 2.10.101 of NPS EN-3 further states, *"The impact of the proposed development on established trees and hedges should be informed by a tree survey and arboricultural/hedge assessment as appropriate".*

Landscape Character

14.1.10 EN-1 paragraph 3.1.2 states *"it will not be possible to develop the necessary amounts of such infrastructure without some significant residual adverse impacts". Paragraph 5.10.5 also notes specifically with regard to landscape and visual effects that: "Virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation".*

14.1.11 EN-1 paragraph 4.2.2 states *"energy security and net zero ambitions will only be delivered if we can enable the development of new low carbon sources of energy at speed and scale".* Complementary to this, EN-1 paragraph 5.10.26 recognises that any reduction in the scale of a project, to mitigate adverse effects, may result in a significant operational constraint or reduction in function, such that the SoS should balance the loss of function, with any potential reduction in adverse landscape and / or visual effects.

14.1.12 EN-1 paragraph 5.10.14 further states that the SoS should 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.

14.1.13 **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** was informed by a series of Zone of Theoretical Visibility (ZTV) figures (see **ES Volume 3, Figures 11.3 – 11.6 [EN010159/APP/6.20]**). A study area of 2km radius from the Order Limits. Paragraph 11.3.4 of **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** identifies that the study area is proportionate and representative geographic area to identify all non-negligible effects on landscape and visual receptors and is appropriate to identify all likely significant effects.

14.1.14 **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** sets out the relevant landscape character areas in the study area. Table 11.8: Summary of Landscape Receptors sets out the landscape character areas (LCAs) associated with the Proposed Development and Order Limits. These LCAs were scoped into the assessment because the Proposed Development extends across them and as such there is the potential for a large scale of change to the character of the landscape.

14.1.15 In line with paragraphs 2.10.100 and 2.10.101 of EN-3, the **Outline CEMP [EN010157/APP/7.2]** details that construction should be undertaken in a sensitive manner with regard to the existing landscape fabric within the Order Limits. It details where existing hedgerows, trees and woodland would be retained and explains the proposed protection measures to be implemented during construction.

14.1.16 During the construction, operation and decommissioning phases, effects on landscape character are assessed within **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** as being significant during construction due to a moderate adverse effect on existing landscape character.

Visual Impact

14.1.17 It is referred to in EN-1 paragraph 5.10.35 that the scale of energy projects means they will often be visible across a wide area. Paragraph 2.10.97 of EN-3 states that 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.

14.1.18 Paragraphs 5.10.13 to 5.10.14 of EN-1 state that all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites, and a judgement is required on whether effects upon sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project.

14.1.19 **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** identifies visual impact receptor groups and contains an assessment of visual effects.

- Residents;
- Users of Church and Main Street;
- Users of local public rights of way (footpaths and bridleways); and
- Users of main roads and local roads.

14.1.20 The majority of existing views are influenced to varying degrees by the extent of overhead pylons across the Order Limits and study area, such that there is an energy infrastructure to the composition of views.

14.1.21 The receptors of higher visual sensitivity are typically associated with promoted routes and have largely open views unspoiled by any detractors. The receptors of lower visual sensitivity are typically associated with major roads and contain notable detracting features such as pylons.

Proposed Mitigation

14.1.1 Paragraphs 2.10.93 - 2.10.101 of EN-3 note that part 5.10 of EN-1 is where the generic impacts relating to Landscape and Visual are covered. However, paragraph 2.10.98 confirms the following:

"Applicants should follow the criteria for good design set out in Section 4.7 of EN-1 when developing projects and will be expected to direct considerable effort towards minimising the landscape and visual impact of solar PV arrays especially within nationally designated landscapes".

14.1.2 Specific landscape and visual matters are set out under 'Impacts' in paragraphs, 2.10.93 - 2.10.101 of EN-3. 2.10.94 advises that solar farms are likely to be in low lying areas of good exposure as such may have a wider zone of visual influence than other types of energy infrastructure.

14.1.3 During the site selection process, the Applicant sought to avoid landscape and visual impacts by siting the Proposed Development in the areas of lesser impact. Within the initial search area of 8km, the Applicant assessed the topography of the landscape and number of potential visual sensitive receptors. This led to an assessment of the key viewpoints from settlement edges and PRoW to indicate the character of views across the search area, to seek to avoid significant adverse impacts in terms of landscape and visual aspects by removing parcels of land within the search area that performed poorly.

14.1.4 Large areas to the west of the existing High Marnham Substation are at higher ground where the land rises steeply to forma a ridge, in proximity to the settlements of Tuxford and East Markham. There is also an area of higher land in the east, which includes the settlement of Eagle to the south east of the Order Limits. In comparison, views across the low lying at the centre of the study area tend to be limited by field boundary hedgerows and narrow belts of trees.

14.1.5 In conjunction with other site selection criteria, as set out in the Site Selection Report at Appendix 1 of this Planning Statement, land towards the centre of the search area was selected as the preferred Order Limits, and this was beneficial in terms of avoiding higher ground to the east and west where the landscape and visual impacts would have been worse.

14.1.6 It is recognised that schemes of this type and scale will often need to be located in a rural location, provided that the planning and environmental effects are acceptable. As such, avoiding all landscape and visual impacts is not possible, so these have been mitigated, as set out below and in the **ES Volume , Chapter 11: Landscape and Visual [EN010159/APP/7.11]** have included:

> The siting of all features within the existing vegetation structure to retain the scale and pattern of the landscape;

- Appraisal of the setting of local villages and the integration corresponding offsets to minimise, wherever possible, impacts on their character. This has included:
- The removal of all land from between North Clifton and South Clifton;
- Embedding offsets from Ragnall in the order of 200m east of Main Street and utilisation of existing landform to the west to screen visibility of Work Area 1 (as shown on the Works Plans (see Volume 2: Plans/ Drawings/ Sections [EN010159/APP/2.3]));
- Integration of offsets from Fledborough, including 130m from the Access Road to Fledborough and retention of a clear view corridor extending for over 700m between residential properties within the village and Fledborough Viaduct, requiring the removal of over 46 acres from Work Area 1 and inclusion in Work Area 8, as secured on the Works Plans (see Volume 2: Plans/ Drawings/ Sections [EN010159/APP/2.3]); and
- The removal of land west of Thorney from the Order limits, avoiding visual impact on residential receptors and changes to the character of the village.

14.1.7 Utilisation of a **Height Parameter Plan (see Site Layout Plans [EN010159/APP/5.10])** to limit the need for earthworks that would alter topography within the Order limits.

14.1.8 Identification of land either side of the River Trent as an important recreational and ecological corridor, as well as providing an important management function in flood events. Such land was therefore excluded from the developable area to maintain (and where possible enhance) the land's current appearance, character and function.

14.1.9 The Proposed Development has been designed in response to the subtle topographical variations across the Order limits, for example:

14.1.10 Offsets west of Ragnall and south of the Medieval Scheduled Monument were designed to utilise minor ridgelines to screen the proposed solar PV arrays in residential views and to protect the setting of heritage assets.

14.1.11 The A1133 follows a minor ridgeline running north/south. The majority of land west of this minor ridge was excluded from Work Area 1, thereby utilising the existing topography to provide visual screening and separation from the River Trent and villages of North and South Clifton.

14.1.12 Land east of the A1133 falls towards eastwards. The project's eastern substation (Work Area 3) has been sited on the lower part of the hill to minimise its appearance and retain the integrity of the skyline beyond.

14.1.13 New planting proposed across the Order Limits has also been included to mitigate adverse effects and provide enhancement associated with other environmental topics such as:

- new hedgerows, that include some evergreen species, to mitigate glint and glare impacts, as secured in the OLEMP (see Volume 7: Other Documents [EN010159/APP/7.7]);
- offsets occupied by Work Number 8, as secured in the Works Plans (see Volume 2: Plans/ Drawings/ Sections [EN010159/APP/2.3]) to protect the setting of heritage assets, such as St. Leonard Church, Ragnall; and
- the reinstatement of coastal grazing marsh on the eastern bank of the River Trent, as secured in the OLEMP (see Volume 7: Other Documents [EN010159/APP/7.7]).

14.1.14 Further work has been undertaken to mitigate impacts from residential receptors as set out in the **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/7.11]**, which has been a key consideration in the design development. Table 11.10 taken from **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/7.11]** sets out the design response to specific properties in proximity to the Order Limits.

Residential receptor	Design measure
Properties east of Whimpton Medieval Village	Work area 1 has been set back by over 300m to place solar PV panels beyond the crest of the minor ridge, screening them from southerly residential views.
Farhill Farm	Land north east of the property was identified as being of the most valuable in terms of residential views. The field (approximately 16.5 acres) was therefore removed from Work area 1.
Vicarage Farm	North easterly and south easterly views were identified as being the most valuable in terms of residential views. Approximately 21 acres of potentially developable land was therefore removed from Work Area 1. Screening vegetation (within Work Area 8) is proposed south of the Fledborough Beck to mitigate the introduction of Work Area 2 and 3 in southerly residential views.
North Farm and Top Farm	Land in the fields west of the farms was removed from Work Area 1 to protect residential views.
Fledborough Farm	Land east of Fledborough Farm was removed from Work Area 1 to protect residential views.

Station Cottages	Offsets of approximately 140m were included to the east, and approximately 170m to the west, of Station Cottages.
The Gables, Manor House and neighbouring dwellings in Fledborough	A direct visual connection between these dwellings and Fledborough viaduct was identified as important in residential views from the dwellings. Circa 46 acres was therefore removed from Work Area 1 and included in Work Area 8.
1 Collingham Road	The field south of the dwelling (10 acres) was identified as important in the foreground of residential views and was therefore removed from the Order Limits.
Mill Hill House	Land east of the dwelling was not included within the original Order Limits. An offset of 50m was included along the northern curtilage boundary.
The Hall	Land east (2 acres) of The Hall was excluded from the Order Limits in response to residential setting, and a further offset of approximately 200m was included to the south of the property.
The Chase	Approximately 3.2 acres of land north and east of The Chase was removed to protect residential views which become available during winter months when deciduous vegetation loses its leaf. Similarly, an offset of 120m was included in Work Area 1 south of the dwelling to minimise the impact on upper-storey gable end views.
Wheatholme Farm	Land south of the dwelling was excluded from Work Area 1 to protect southerly residential views and views from the access drive.
Moor Farm (south)	14 acres of land were removed from Work Area 1 to retain open views east and north of the dwelling. Land west and south is not within the Order Limits
Moor Farm (north) and Mill Farm Cottage	Approximately 48 acres of land around the two properties was excluded from Work Area 1 to protect residential views.
Northfield Farm	Approximately 4 acres south and east of Northfield Farm were excluded from Work Area 1 to protect residential views.
Thorney Gate	A view corridor, extending 145m west, was created by the integration of Work Area 8, dividing two sections of Work Area 1, to retain the visual connection to an existing woodland west of the property.

Properties in the wider landscape	The wider approach to siting and design of the Proposed Development has been cognisant of impacts on properties located further from the Order Limits through measures such as retention of existing hedgerows and planting of new vegetation to provide screening.

14.1.15 The Proposed Development has sought to protect visual amenity experienced by people travelling on public rights of way across, and in proximity to, the Order Limits. A minimum offset of 15m to Work Area 1 is included within the Works Areas. This minimum distance has been maintained throughout design development but in many instances has been increased, including a 150m total width from public footpath (NT/Fledborough/FP11) north of Fledborough.

14.1.16 The Proposed Development has also embedded mitigation specifically to minimise visual effects on equestrians. With reference to 'Advice on Solar farms near routes used by equestrians', published by the British Horse Society, the Proposed Development has:

- avoided the creation of narrow corridors around Bridleways extending at least 30m from solar panel to solar panel, beyond the 5m minimum noted in the advice note, as secured on the **Works Plans (see Volume 2: Plans/ Drawings/ Sections [EN010159/APP/2.3]);**
- utilised post and wire fencing screened by hedgerows, as secured by the Outline Design Parameters and **OLEMP (Volume 7: Other Documents [EN010159/APP/7.7];** and
- provision of additional routes accessible to equestrians via the proposed permissive path network, as secured in the **OLEMP (Volume 7: Other Documents [EN010159/APP/7.7].**

14.1.17 Taken the above extensive mitigation where avoidance was not possible, it is considered that EN-1 Section 5.10 and EN-3 paragraphs 2.10.93– 2.10.101 and local policies are addressed through the above embedded mitigation measures which have been factored into the assessment of landscape, visual and residential amenity impacts.

14.1.18 Additional mitigation measures are contained within Section 11.8 of **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].** These measures seek to further reduce adverse landscape and visual effects (in addition to those mitigation measures that are embedded into the design of the Proposed Development). Such measures include implementing the following management plans:

Construction Phase

- **Outline CEMP [EN010159/APP/7.4]** – details vegetation protection measures to be implemented during construction
- **Outline CTMP [EN010159/APP/7.9]** – details that construction vehicle movements would be routed in accordance with an agreed strategy and avoid additional landscape and visual effects.
- **Outline SMP [EN010159/APP/7.10]** – would ensure that the soils are suitable following construction for establishment of the habitats proposed including the strategic planting proposed for mitigation of landscape and visual effects.
- **Outline LEMP [EN010159/APP/7**.7] – details that planting will take place in the first available planting season and at a time of year appropriate to the species being planted. Within the majority of habitat management areas (other than where transmission cable installation is required) habitat creation will begin in the first available planting season prior to construction commencing. The planting of hedgerow gaps and positive management to increase hedgerow size will commence in the planting season (i.e. winter) prior to the commencement of construction.

Operational Phase

- **Outline LEMP [EN010159/APP/7.7]** – details how planting would be managed throughout the operational phase of the Proposed Development including how defective planting is to be replaced and how to ensure new planting establishes successfully.

Decommissioning

- **Outline DEMP [EN010159/APP/7.8]** – confirms that the land within the Order Limits will be restored in accordance with the Outline LEMP.
- Prior to the relevant stage of the Proposed Development, the outline management plans will be updated as secured by the DCO Requirements (Schedule 2).

Residual Landscape and Visual Effects

14.1.19 After the implementation of both embedded and additional mitigation measures, **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/7.11]** concludes that a number of significant residual impacts would remain. In terms of landscape effects, during construction, there would be a presence of construction activity, workers compounds and partially completed structures which would have direct effects on the landscape character. The construction works and activity would represent a change of land use from predominantly agricultural to an active construction site (and therefore activity and machinery of a greater scale than general farming) as well as the physical loss of landscape features such as hedgerows and riparian vegetation.

14.1.20 The construction works and activity would result in a very high magnitude of impact across the Order Limits. In relation to the medium sensitivity of the Order Limits,

the significance of effect during the construction phase would be major adverse, which is significant.

14.1.21 During construction for both the landscape character areas and local village character areas covering the Order Limits the effects would mirror that of the effects within the Order Limits, set out above.

14.1.22 In terms of construction visual effects, significant effects would be experienced by people within close proximity to, or with clear intervisibility with the proposed construction works. This is limited to people travelling along the road and PRoW networks that pass adjacent or through the Order Limits, as well as residents of Ragnall, Skegby and nearby farmsteads such as Moor Farm. With the exception of the public footpaths south-east of East Drayton where construction works would be experienced on the rising land south of the A57, there would be no significant visual effects on people beyond approximately 200m of the Order Limits.

14.1.23 In terms of landscape effect at Year 1of operation, the evident changes to the land use, from fields to solar panels and associate equipment would have a direct effect on the character of the Order Limits, landscape character areas and local village characters covering the Order Limits.

14.1.24 The magnitude of impact at the Order Limits level would be high. In relation to the medium sensitivity, the significance of effect would be major adverse at Year 1 of operation, which is significant. The same conclusion is reached at Year 1 of operation for visual effect because of the visual effects that would arise from views of above ground structures of the Proposed Development including the substation, BESS and solar arrays. Newly planted vegetation would be yet to establish and mature so there would be limited additional screening. However, no significant effects are predicted beyond approximately 200m of the Order Limits. Significant effects would be limited to people travelling along the PRoW network that pass adjacent to or through the Order Limits, short sections of the local road network, as well as residents of isolated farmsteads to the east of the A1133.

14.1.25 At Year 15, the landscape effects would be similar to that described at Year 1, except the new trees and hedgerows would have established and matured, along with the proposed grassland forming a continuous sward beneath the panels and around the field margins. This would integrate the Proposed Development into the landscape to a far greater extent than at Year 1, even in winter due to the greater height and density of the proposed planting. However, the **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/7.11]** confirms that at Year 15, the Proposed Development would result in a high magnitude of impact. In relation to the medium sensitivity of the Order Limits, the effect would reduce to moderate adverse, which is significant. The effect is reduced from major adverse due to the improved vegetation cover in comparison to the existing fields and the more settled character to the Order Limit along with the reversible nature of the Proposed Development.

14.1.26 In terms of the Year 15 operational phase visual effects, these would arise from views of above ground structures of the Proposed Development including the

substation, BESS and solar arrays. However, mitigation planting would have established and matured so that the extent over which the Proposed Development would be experienced would be further reduced.

14.1.27 Significant effects would be mostly experienced by people within or immediately adjacent to the Order Limits and no significant effects are predicted beyond approximately 200m of the Order Limits. Fewer people would experience significant effects at year 15 of the operation phase, and these would be limited to people travelling along the PRoW network that pass adjacent to or through the Order Limits, short sections of the local road network, as well as residents of isolated farmsteads to the east of the A1133. These would not be significant effects for the duration of these footpaths and/or roads and the experience would be of glimpsed views, rather than a constant view of Solar PV development on both sides the duration of the journey. The specific context in which the effects are significant is set out below with each viewpoint that is discussed.

14.1.28 The residual effects at Year 15 for each viewpoint are set out below, which have been grouped into receptor type (road user, public footpath user and residents), rather than in numerical order. It is noted that the below lists 13 viewpoints which have residual effects, however for project of this scale this is not considered to be significant, and it is noted that for 65 viewpoints the predicted effects would not be significant, which is due to the Proposed Development either not being visible in the view, or it forming only a small part of the view such that the character and composition of the view would not be substantially changed. This is a result of the site selection and detailed design work described above that resulted in areas where the most significant effects were predicted being avoided, and then significant design work to include mitigations to limit effects where possible.

Road Users

14.1.29 Viewpoint 4: View from A1133 (representative of people travelling along the A1133 between North Clifton and Newton on Trent), due to the High magnitude of change, which in relation to the Low sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development from the gate access into the Solar PV Site, where there would be no intervening hedgerows or trees. People travelling along the A1133 would typically experience this view as a fleeting view, rather than for the entire length of the road, as existing and proposed roadside hedgerows would provide varying levels of screening and filtering.

Public Footpath Users

14.1.30 Viewpoint 9b: View from Moor Farm on public bridleway (NT/North Clifton/BW10) (representative of residents and people travelling the local public right of way network between North Clifton and Wigsley), due to the Medium magnitude of change, which in relation to the High sensitivity of the receptor would result in a Moderate adverse effect and in relation to the Medium sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. Residents

would typically experience this view as an oblique view and partly obscured by vegetation within their gardens, whilst people travelling along the public bridleway would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.31 Viewpoint 10: View from National Cycle Network (Route 647) (representative of people travelling along Route 647 of the National Cycle Network between North Clifton and Wigsley), due to the High magnitude of change, which in relation to the High sensitivity of the receptor would result in a Major adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the National Cycle Network would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.32 Viewpoint 11: View from public bridleway (NT/Thorney/BW19) (representative of People travelling along the local public right of way network between North Clifton and Wigsley), due to the Medium magnitude of change, which in relation to the Medium sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public bridleway would typically experience this view where the route intersects the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.33 Viewpoint 13: View from Moor Lane (representative of residents and people travelling along Moor Lane between South Clifton and Thorney Moor), due to the Medium magnitude of change, which in relation to the High sensitivity of the receptor would result in a Moderate adverse effect and in relation to the Medium sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. Residents would typically experience this view as an oblique view and partly obscured by vegetation within their gardens, whilst people travelling along Moor Lane would typically experience this view as a fleeting view, rather than for the entire length of the road, as existing and proposed roadside hedgerows would provide varying levels of screening and filtering.

14.1.34 Viewpoint 41: View from public bridleway (NT/Darlton/BW1) (representative of users of people travelling along the local public right of way network between Main Street and Woodcoates Road), due to the Medium magnitude of change, which in relation to the Medium sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public bridleway would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.35 Viewpoint 42a: View from public footpath (NT/Ragnall/FP2), (representative of people travelling along the local public right of way network between Ragnall and Fledborough), due to the High magnitude of change, which in relation to the Low sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public footpath would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.36 Viewpoint 42b: View from public footpath (NT/Ragnall/FP2), (representative of people travelling along the local public right of way network between Ragnall and Fledborough), due to the High magnitude of change, which in relation to the Low sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public footpath would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.37 Viewpoint 58a: View from public bridleway (NT/Ragnall/BW3), along Fledborough Beck, Ragnall (representative of people travelling along the local public right of way network between Ragnall and Woodcoates Road), due to the High magnitude of change, which in relation to the Medium sensitivity of the receptor would result in a Major adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public bridleway would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

14.1.38 Viewpoint 58b: View from public bridleway (NT/Ragnall/BW3), along Fledborough Beck, Ragnall (representative of people travelling along the local public right of way network between Ragnall and Woodcoates Road) due to the High magnitude of change, which in relation to the Medium sensitivity of the receptor would result in a Major adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. People travelling along the public bridleway would typically experience this view where the route passes through the Order Limits, rather than for the entire length of the route, as existing and proposed vegetation would provide varying levels of screening and filtering.

Residents

14.1.39 Viewpoint 13: View from Moor Lane (representative of residents and people travelling along Moor Lane between South Clifton and Thorney Moor), due to the Medium magnitude of change, which in relation to the High sensitivity of the receptor would result in a Moderate adverse effect and in relation to the Medium sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint

demonstrates the Proposed Development across an open field and within close distance. Residents would typically experience this view as an oblique view and partly obscured by vegetation within their gardens, whilst people travelling along Moor Lane would typically experience this view as a fleeting view, rather than for the entire length of the road, as existing and proposed roadside hedgerows would provide varying levels of screening and filtering.

14.1.40 Viewpoint 56: View from north of Ragnall (representative of residents along Main Street between Ragnall and the A57) due to the Low magnitude of change, which in relation to the High sensitivity of the receptor would result in a Moderate adverse effect. This Viewpoint demonstrates the Proposed Development across an open field and within close distance. Residents would typically experience this view as partly obscured by vegetation within their gardens, whilst people travelling along Main Street would typically experience this view as a fleeting view, rather than for the entire length of the road, as existing and proposed roadside hedgerows would provide varying levels of screening and filtering.

14.1.41 In terms of decommissioning, the landscape and visual effects would both be considered significant due to the change of land use from a predominantly agricultural baseline to an active construction site (and therefore activity and machinery of a far greater scale than general farming) as well as the physical loss of landscape features such as hedgerows and riparian vegetation. In terms of the visual effects it is noted that significant effects would be experienced by people within close proximity to, or with clear intervisibility with the proposed works and activity, such as those travelling along neighbouring roads and the PRoW network that passes adjacent or through the Order Limits, as well as residents of Ragnall, Skegby and nearby farmsteads such as Moor Farm. With the exception of the public footpaths south-east of East Drayton where decommissioning works would be experienced on the rising land south of the A57, there would be no significant visual effects on people beyond 200m of the Order Limits.

Summary

14.1.42 The LVIA at **ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11]** has concluded that the Proposed Development will result in some adverse landscape and visual effects. As recognised in EN-1 paragraph 3.1.2, significant adverse effects can be expected for new nationally significant infrastructure projects. It is also expected in EN-1 paragraphs 5.10.5 and 5.10.13 that there will likely be adverse landscape and visual effects for many receptors. However, considerable effort has been made to minimise landscape and visual impacts of the Proposed Development, which is in accordance with EN-1 paragraph 5.10.19 where landscape and visual effects were considered in the early stages of siting and design. Critically the SoS should consider how well designed a project is and whether an Applicant has genuinely sought to minimise harm to the landscape including by way of use of appropriate mitigation. EN-3 expands on this point and advises applicants to minimise landscape and visual impacts through screening.

14.1.43 The above policy requirements have been demonstrated clearly above which lists in detail the site selection process that directed the Order Limits to the most suitable areas in terms of landscape and visual effects. Following this the significant amount of design work that was undertaken to demonstrate how the potential impact on the landscape has been taken into account. This has ensured that mitigation was embedded into the design from an early stage, and on a number of occasions developed and improved to include additional mitigation to ensure that the residual effects on viewpoints at year 15 have been reduced as far as practicably possible. This hoes however have to be balanced by seeking to preserve the ability for an effective, well sited, renewable energy development to be constructed and operated. This is necessary to achieve sustained growth in Solar PV, as referenced in paragraph 2.10.9 of EN-3, which is required to meet the UK's net zero emissions 2050 target.

14.1.44 It is considered that the wider benefits of the Proposed Development, including the delivery of significant level of low carbon energy generation, biodiversity net gain and the provision of Permissive Paths, outweigh these adverse landscape and visual effects and that the Proposed Development is considered acceptable in terms of overall landscape, visual and residential amenity impacts. The Proposed Development is compliant with the EN-1, EN-3, EN-5 and other national and local planning policy.

15. Transport and Access

15.1.1 This section reviews the Proposed Development in the context of planning policies related to transport and access. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6]**

15.1.2 In accordance with paragraph 5.14.5 of EN-1, **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12]** assesses the impact of the Proposed Development on transport and access, including a transport appraisal. **ES Volume 3, Appendix 12.1 [EN010159/APP/6.21]** includes a **Transport Assessment.**

15.1.3 Paragraph 5.14.7 of EN-1 states the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. A travel plan is submitted within the **outline Construction Traffic Management Plan (oCTMP) [EN010159/APP/7.9]**, which will be secured by way of Requirement within the **Draft DCO [EN010159/APP/3.1].**

15.1.4 EN-1 paragraph 5.14.18 notes that new NSIPs may give rise to substantial impacts on surrounding transport infrastructure and that applicants should seek to mitigate these impacts, including during the construction phase of the Proposed Development.

15.1.5 The nature of the Proposed Development is such that the greatest traffic and transport impacts are likely to occur during both the construction and decommissioning phases. This is acknowledged in Paragraph 2.10.161 of the EN-3 which confirms that once solar farms are in operation, traffic movements to and from the Proposed Development are generally 'very light'. All road users during the operational phase have been scoped out of the ES assessment due to the impacts of the local road system being minimal during the operational phase, as stated in **ES Volume 3, Appendix 12.1 [EN010159/APP/6.21].**

15.1.6 In response to NPS EN-1 Paragraph 5.14.18, the mitigation measures proposed are set out in **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12]** and will secured through the **outline Construction Traffic Management Plan (oCTMP) [EN010159/APP/7.9]** and the final Construction Traffic Management Plan which will be secured by way of requirement in the Draft DCO **[EN010159/APP/3.1].** In summary, the mitigation measures include:

- Basic construction traffic management measures, including the provision of "Construction Access Ahead" and "Slow Ahead" signage at each access junction;
- Access junctions into the site, designed in accordance with LCC or NCC standards, depending upon which local authority boundary they are located in;

- The use of a Travel Plan for construction staff, to be included within the contracts to be let for the construction of the Proposed Development;
- The use of Police escorts in the transport of AIL components from the port of entry, through to the development site;
- A 'Wear & Tear' agreement to cover sensitive sections of the public road network and the areas around the proposed site access junction locations; and

- Road cleaning, within 500m of the proposed site access junctions.

15.1.7 **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12]** concludes that following the application of mitigation measures, the potential for adverse traffic and transport related effects during the construction and decommissioning phases arising from the Proposed Development would be not significant.

15.1.8 Paragraph 5.14.11 of EN-1 states where mitigation is needed possible demand management measures must be considered before requirements for provisions of new infrastructure to deal with any remaining transport related impacts. Paragraph 5.14.15 of EN-1 states "*the SoS should have regard to the cost-effectiveness of demand management measures*".

15.1.9 In response, as concluded in **ES Volume 2, Chapter 12: Transport and Access [EN010159/APP/6.12]** mitigation is embedded into the design of the Proposed Development and set out in the **outline Construction Traffic Management Plan (oCTMP) [EN010159/APP/7.9].** As a result of the mitigation measures proposed, impacts of the Proposed Development are such that provision of new transport infrastructure is not required.

15.1.10 Paragraph 5.14.12 of EN-1 states that maritime and inland waterway transport methods or rail transport are preferred over road transport at all stages of the project, where cost-effective.

15.1.11 Paragraph 5.14.16 of EN-1 states that Applicants should consider DfT policy guidance "Water Preferred Policy Guidelines for the movement of abnormal indivisible loads" **[Ref 16]** when preparing their application, and paragraph 5.14.17 confirms that where the cost of meeting obligations or requirements would make the proposal economically unviable, his should not in itself justify the relaxation by the Secretary of State of any obligations or requirements needed to secure the mitigation.

15.1.12 It is acknowledged that the construction activities where river access would be most suited would be the movement abnormal indivisible loads (AIL). During the construction of the Proposed Development, only a small number of AIL trips will be generated, with the transformers considered AIL and delivered as one delivery each, consisting of AIL transportation on 6 days only across the construction programme, which would result in very localised impacts.

15.1.13 The DfT policy guidance [Ref 16] confirms that it is government policy to avoid road transport as far as practically possible by using alternative transport modes, such as water. It goes on to state that where the applicant is applying to move a wide and heavy load by road and there is a water option the onus is on them to show why it should not be used. In this case, it is noted that the River Trent runs through the centre of the Order Limits, thus presenting an option for AILs to be transported by river to an appropriate place within the Order Limits along the River Trent.

15.1.14 However, as set out in **ES Volume 2, Appendix 12.2A AIL Route Survey [EN010159/APP/6.21],** and in further detail below, this is not possible for a number of reasons, which have been grouped to correspond with the assessment criteria set out in the DtF policy guidelines; practical, environmentally desirable and economic.

Practical

15.1.15 As set out in **ES Volume 2, Appendix 12.2: Transport Assessment [EN010159/APP/6.21],** there are no freight mooring facilities within the Order Limits, the closest commercial facility is the disused facility at Gainsborough located approximately 16km to the north of the Proposed Development.

15.1.16 There is a disused facility associated with the former High Marnham Power Station located to the south of the Site, adjacent to the former pump house, however this appears to be in a state of disrepair and is not considered suitable without complete replacement.

15.1.17 For river access to be used, a mooring and offloading facility would be required. This could take the form of mooring pylons in the river and a substantial high capacity hard standing on the riverbank to support a high-capacity crane or could be a fully formed wharf on the river. Given the Proposed Development straddles both sides of the River Trent however, either duplicate facilities would need to be provided or transhipping from the mooring facility to opposite side of the river would be required.

15.1.18 The creation of a new facility would not eliminate traffic movement within the local area of the development as transhipping would still be required from one side of the river to the other and from that point to the construction areas, using public roads and interfacing with other road users.

15.1.19 As it is not practical to transport AIL to within the Order Limits, access to the River Trent from Cottam Quay was also considered as the closest alternative location, approximately 5km to the north of the Order Limits.

15.1.20 Access from the jetty onto the nearby Torksey Ferry Road has been examined, however access from here will require loads passing through the villages of Rampton and Laneham. Swept path assessments in both villages identify the need for tree removal, removal of private gardens and collisions with an existing building.

15.1.21 In addition, Cottam Quay does not have the appropriate infrastructure to support the delivery of AIL which is set out in more detail below, based on the environmental and economic factors. The Applicant does not currently have the rights to access this facility, so even if other factors weighed in favour of this option, it would be needed to acquire the necessary rights.

Environmentally desirable

15.1.22 The Cottam Quay is located adjacent to the River Trent, however there is no commercial jetty at the facility currently providing access from the pier to the water and extensive development works would be required to construct the necessary infrastructure to facilitate the transportation of AIL. Similarly, if a jetty was constructed on the River Trent within the Order Limits, extensive development works would be required.

15.1.23 This would include extensive works to the River Trent which would be undesirable from an environmental perspective, as it is likely to cause adverse impacts to habitats, species and water quality. The potential impact on the River Trent from an environmental perspective would not be justified, based on the minimal number of AIL trips associated with the development.

Economic

15.1.24 As set out above, there is no existing facility that could currently accommodate the movement of AIL on the River Trent and the construction of a suitable facility would not be viable and would be wholly disproportionate, given the limited number of AIL movements associated with the Proposed Development.

15.1.25 It also noted that transporting the AIL through the Cottam Power Station site would cause issues with regards to potential contamination, as a new or improved access route would likely need to be constructed and this would need to be remediated prior to access, which would have a significant cost associated with it, disproportionate to the AIL movements required.

15.1.26 The number of vessels that could operate on the River Trent with the transformer loads is highly constrained. Access by river would take at least two days from the port of import, and would be potentially limited by tidal constraints and weather conditions. Access by road can be achieved within one day and is not subject to similar restrictions.

Conclusion

15.1.27 As such, it is considered that the Proposed Development complies with the DfT policy guidelines "*Water Preferred Policy Guidelines for the movement of abnormal indivisible loads*". The Applicant is engaging with National Highways in order to confirm its position with respect to the policy, and will continue to do so.

Summary

15.1.28 The above assessment concludes that there are no significant adverse effect likely for transport and access; therefore, the Proposed Development is in accordance with paragraphs 5.14.18 – 19 of EN-1.

15.1.29 Mitigation has been considered and embedded into the design of the development of the Proposed Development, including through the implementation of the **outline Construction Traffic Management Plan (oCTMP) [EN010159/APP/7.9].**

15.1.30 Paragraph 5.14.21 of NPS EN-1 advises that the SoS 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 that would be severe*". There are no grounds relating to highways impacts in this regard and therefore the Applicant considers that it is compliant with the relevant policy tests in this regard.

15.1.31 Overall, the Proposed Development is considered to be in compliance with NPS EN-1, NPS EN-3, NPPF, and local planning policy with regard to traffic and transport effects.

16. Air Quality

16.1.1 This section reviews the Proposed Development in the context of planning policy for air quality. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

16.1.2 Paragraph 5.2.8 of EN-1 requires development that is likely to have adverse effects on air quality to undertake an assessment of the impacts of the proposed project as part of the ES. An air quality assessment has been undertaken and the impacts of the Proposed Development are reported in **ES Volume 2, Chapter 13, Air Quality [EN010159/APP/6.13].**

16.1.3 EN-1 Paragraph 5.2.9 describes what ES Chapters should include with regard to air quality. The content of EN-1 Paragraph 5.2.16 states that the SoS should give substantial weight where a project would lead to a deterioration of air quality.

16.1.4 **ES Volume 2, Chapter 13, Air Quality [EN010159/APP/6.13]** concludes that there would be no likely significant residual effects on air quality.

16.1.5 The nature of the Proposed Development means that the operational phase is very unlikely to result in any significant emissions to the air. Traffic-related to operation and maintenance is minimal, as described in **ES Volume 2, Chapter 13, Air Quality [EN010159/APP/6.13].** There will also be no combustion plant on Site. As such, there are no receptors from the operational phase of the Proposed Development upon Air Quality.

16.1.6 The **oCEMP [EN010159/APP/7.4] and oDEMP [EN010159/APP/7.6]** prepared in support of the DCO Application sets out measures to manage any potential air quality effects that may arise from construction and decommissioning activities. The oCEMP and oDEMP set out the requirement for a Dust Management Plan (DMP) to be prepared as part of the detailed CEMP, prior to the construction of the Proposed Development proceeding.

Summary

16.1.7 As concluded in **ES Volume 2, Chapter 13, Air Quality [EN010159/APP/6.13]**, on the basis that the application of appropriate mitigation measures is in place, there are expected to be no likely significant effects on air quality, either in isolation or in combination with other projects.

16.1.8 In summary, the Proposed Development is not anticipated to have any residual adverse effects on air quality during the construction, operational and decommissioning phases. Therefore, there is no requirement for substantial weight to be afforded against the Proposed Development in the planning balance as per the advice within paragraph 5.2.16 of EN-1. Furthermore, the Proposed Development is not located near a sensitive receptor site as defined in paragraph 5.2.16 of EN-1. It is considered that there are no implications in terms of the tests

required to be applied by the SoS in decision making as set out in paragraphs 5.2.15 - 5.2.19 of EN-1.

17. Carbon and Climate Change

17.1.1 This section reviews the Proposed Development in the context of planning policy for carbon and climate change. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

17.1.2 The potential impacts of the Proposed Development on climate change, as well as the vulnerability of the Proposed Development to the effects of climate change, are considered in **ES Volume 2, Chapter 14, Carbon and Climate Change [EN010159/APP/6.14]** which has been prepared in accordance with the relevant policy.

17.1.3 In summary, the Proposed Development is expected to result in a significant beneficial impact on greenhouse gas emissions with 3,045,555 tCO2e saved over the 60-year operational lifetime of the Proposed Development in comparison to if the same quantity of electricity were produced by Combined Cycle Gas Turbine.

17.1.4 As set out in the above sections of this Planning Statement, paragraph 2.2.1 of EN-1 notes the legally binding targets upon the UK Government to cut greenhouse gas emissions, the challenging nature of the transition, and the major investment in new technologies required. The resulting urgent need for new nationally significant electricity infrastructure projects is set out in paragraph 3.3.1 of EN-1. Section 3.3 of EN-1 sets out the resulting need of solar at paragraph 3.3.20 to 3.3.24. The **Statement of Need [EN010159/APP/7.1]** refers to the relevant NPS and demonstrates the role of the Proposed Development in contributing to net zero and reducing GHG emissions.

17.1.5 Section 2.4 of EN-3 notes climate change adaptation and resilience confirming that solar development sites need to be resilient to increased risk of flooding and also the impact of higher temperatures on the planet.

17.1.6 NPPF paragraph 161 states the planning system should support the transition to net zero by 2050 and shape places in ways that contribute to radical reductions in GHG emissions. Paragraph 168 of the NPPF states that local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse emissions. Table 4 in **Policy Compliance Tables [EN010159/APP/5.6]** addresses NPPF policy.

17.1.7 The Central Lincolnshire Local Plan Policy S20 (Resilient and Adaptable Design) states that applicants should design proposals to be adaptable to future social, economic, technological, and environmental requirements to make designs to be adaptable and mitigate against climate change. Policy S14 (Renewable Energy) notes that the *"Central Lincolnshire Joint Strategic planning Committee is committed to supporting the transition to a net zero carbon future and will seek to maximise appropriately located renewable energy generated in Central Lincolnshire (such energy likely being solar based)".*

17.1.8 Bassetlaw Local Plan 2020-2038 Policy ST48 (Reducing Carbon Emissions, Climate Change Mitigation and Adaptation) sets out the measures for proposals to address the issues of climate change mitigation and adaptation.

17.1.9 Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy Core Policy 10 (Climate Change) states that *"the District Council is committed to tackling the causes and impacts of climate change and to delivering a reduction in the Districts carbon footprint."*

Climate Change

17.1.10 Paragraph 4.10.1 of EN-1 states that new energy infrastructure must be sufficiently resilient against the possible impacts of climate change or else it will not be able to satisfy the energy needs outlined in Part 3 of the NPS.

17.1.11 Paragraph 4.10.8 of EN-1 requires applicants to consider the impacts of climate change when planning the location, design, build, operation, and where appropriate, decommissioning of new energy infrastructure.

17.1.12 EN-1 continues at paragraph 4.10.13 to advise that the SoS 'should be satisfied that applicants for new energy infrastructure have taken into account the potential impacts of climate change'. At paragraph 4.10.15 it continues to state that SoS should 'be satisfied that there are not features of the design of the new energy infrastructure critical to its operation which may be affected by more radical changes to the climate beyond that projected by the latest set of UK climate projections'.

17.1.13 EN-3 Paragraph 2.4.11 discusses the introduction of solar photovoltaics and how they are typically proposed within low-lying exposed sites. For these types of proposals, applicants should consider how the equipment is resilient to increased risk of flooding and the impact of higher temperatures.

17.1.14 Paragraph 2.3.2 of EN-5 requires the consideration of the effects of flooding (particularly on substations that are vital for the electricity transmission and distribution network), winds and storms (on overhead lines), higher average temperatures (leading to increased transmission losses), earth movement or subsidence caused by flooding or drought (on underground cables) and coastal erosion (for the landfall of offshore transmission cables and their associated substations in the inshore and coastal locations respectively).

17.1.15 In response to these paragraphs, the **Design Approach Document [EN010159/APP/5.8]** describes how the Proposed Developments project design principles were developed and have been applied in the design evolution of the Proposed Development from the outset. The project design principles have been split into four themes, with a specific theme dedicated to climate. The project design principles under the theme of climate include:

Seek to reduce the embodied carbon throughout the project lifecycle

- Maximise the volume of clean energy that can be provided to the national electricity grid
- Craft a scheme that is resilient to the effects of climate change

17.1.16 The **Site Selection Assessment** at Appendix 1 of this Planning Statement, and **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN010159/APP/6.4]** outlines the process for identifying the Order Limits for the Proposed Development. Climate resilience has been embedded throughout the design of the Proposed Development, through the setting of technical parameters for solar infrastructure, and how it is laid out.

Summary

17.1.17 The Proposed Development provides a significant beneficial effect in terms of impacts on GHG emissions and is the type of infrastructure that is defined as urgent and of CNP by the UK Government. It is considered that the Proposed Development strongly complies with the relevant policy set out in EN-1 and EN-3 and that the beneficial impact attracts substantial weight in the planning balance.

17.1.18 The Proposed Development fulfils the policy requirements of EN-1, and in doing so meets the objectives of NPPF paragraph 161.

18. Noise and Vibration

18.1.1 This section reviews the Proposed Development in the context of planning policy for noise and vibration. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

18.1.2 Paragraph 5.12.5 of EN-1 identifies the factors that will determine the likely noise and vibration impacts of proposed NSIPs which, in summary include; inherent operational noise, proximity to sensitive noise receptors, proximity to 'quiet places' and potential impacts upon wildlife. Paragraph 5.12.6 of EN-1 sets out the specific requirements for noise and vibration assessments.

18.1.3 **ES Volume 2, Chapter 15, Noise and Vibration [EN010159/APP/6.15]** includes a noise assessment of the Proposed Development which was prepared in accordance with the requirements set out in paragraph 5.12.6 of EN-1. The assessment considers the noise generating activities during each phase of the Proposed Development and assesses the worst-case scenario in terms of duration of impact, time of day/night it could potentially occur and proximity of the activity to sensitive receptors.

18.1.4 Paragraph 5.12.8 of EN-1 states that the noise impact of ancillary activities, including increased traffic, should be considered. The noise impact of the construction traffic is based on the assessment of the projected changes in traffic flow as set out in **ES Volume 2, Chapter 15, Noise and Vibration [EN010159/APP/6.15].**

18.1.5 Paragraph 5.12.15 of EN-1 requires developments to demonstrate good design through the selection of the quietest cost-effective plant available; containment of noise within buildings where possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.

18.1.6 Section 2.10.161 of the EN-3 refers to impacts arising from construction including traffic and transport noise and vibration. The focus is on mitigating construction and decommissioning phase transport impacts, such as noted in EN-3 paragraph 2.10.139 where the local highways authority may request that the SoS impose controls on the number of vehicle movements to and from the solar farm site in a specified period. However, it is discussed that the SoS should be satisfied that environmental effects related to construction traffic after mitigation are acceptable, as consistent with the generic policy set out in EN-1. It is noted that EN-3 paragraph 2.10.161 confirms that once solar farms are in operation, traffic movements to and from the Proposed Development are generally ‘very light’. As set out above and in **ES Volume 3, Chapter 15, Noise and Vibration [EN010159/APP/6.15]** the construction and decommissioning impacts have been properly assessed and proposed mitigation measures ensures that there would be no significant effects arising.

18.1.7 Paragraph 5.12.17 of NPS EN-1 states that consent should not be granted unless development proposals meet with the following aims:

- 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; and
- Where possible, contribute to improvements to health and quality of life through the effective management and control of noise.

18.1.8 Paragraph 5.12.13 of EN-1 refers to the consideration by the SoS for the need for mitigation measures both for operational and construction noise over and above any which may form part of the DCO Application. Paragraph 5.12.13 of the EN-1 refers to a requirement to take into account guidance in the NPPF with regard to setting requirements to secure appropriate additional mitigation.

18.1.9 Paragraph 187 of the NPPF states that planning policies and decisions should prevent new development from contributing to unacceptable levels of noise pollution. Paragraph 198 of the NPPF also requires new development to mitigate, and reduce to a minimum, potential adverse impacts resulting from noise and to avoid significant adverse impacts of noise on health and quality of life. Table 4 in the **Policy Compliance Tables [EN010159/APP/5.4]** includes a policy response to the NPPF.

Mitigation and Management

18.1.10 The predicted impacts of noise and vibration generated from the Proposed Development are considered in **ES Volume 3, Chapter 15, Noise and Vibration [EN010159/APP/6.15].** This chapter summarises that the greatest potential noise effects are predicted to occur during the construction and decommissioning phases of the development, with operational noise generally limited to the BESS, and Power Converter Stations (PCS) and the on-site substations.

18.1.11 Specific measures to mitigate noise and vibration impacts are embedded into the design of the Proposed Development, such as the inclusion of noise barriers around the PCSs. Further management of potential impacts is secured through measures identified in the **Outline CEMP [EN010159/APP/7.4]**, **Outline OEMP [EN010159/APP/7.5]**, and **Outline DEMP [EN010159/APP/7.6]**. These include standard good practice measures such as use of Best Practicable Means to reduce disturbance associated with noise and vibration during construction as far as reasonably practicable, with reference to relevant guidance. The implementation of final management plans, which will effectively manage adverse effects that may impact local amenity in relation to noise and vibration, will ensure the Proposed Development is in specific accordance with EN-1 paragraphs 5.12.15 and 5.12.17 and EN-3 paragraphs 2.10.139 and 2.10.161.

18.1.12 The noise assessment in **ES Volume 3, Chapter 15, Noise and Vibration [EN010159/APP/6.15]** confirms that it is not predicted that there will be any significant adverse effects generated by the Proposed Development. This is in accordance with Paragraph 5.12.8 of NPS EN-1.

18.1.13 The technical specifications of the plant associated with the Proposed Development is not yet determined. However, good design with regard to minimising noise and vibration impacts is demonstrated through embedded mitigation.

18.1.14 As a result of the outcome of the noise and vibration assessment, and in response to paragraph 5.12.13 of EN-1, it is not anticipated that the SoS will need to consider additional mitigation measures above those already embedded within the design as set out in detail within **ES Volume 2, Chapter 15: Noise and Vibration [EN010159/APP/6.15]**.

Summary

18.1.15 **ES Volume 3, Chapter 15, Noise and Vibration [EN010159/APP/6.15]** concludes that with the embedded mitigation and additional mitigation measures described in the chapter means that the Proposed Development would not lead to significant adverse noise and vibration effects, addressing paragraph 187 and 198 of the NPPF.

18.1.16 Further, the implantation of final management plans as outlined within the **Outline CEMP [EN010159/APP/7.4]**, **Outline OEMP [EN010159/APP/7.5]**, and **Outline DEMP [EN010159/APP/7.6]** during each relevant phase of the Proposed Development, will reduce adverse noise and vibration effects addressing relevant policy across EN-1 and EN-3.

18.1.17 It is therefore considered that the Proposed Development is in accordance with EN-1, EN-3, the NPPF and relevant local plan policies.

19. Human Health

19.1.1 This section reviews the Proposed Development in the context of planning policy for human health. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

19.1.2 Paragraph 4.4.4 of EN-1 states that *"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."*

19.1.3 Paragraph 2.9.46 of EN-5 states that *"all overhead power lines produce Electric and Magnetic Fields (EMFs). These tend to be highest directly under a line and decrease to the sides at increasing distance. Although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable. EMFs can have both direct and indirect effects on human health, aquatic and terrestrial organisms".*

19.1.4 Section 8 of the NPPF seeks to promote health and safe communities. Paragraph 96 of the NPPF states that *"Planning policies and decisions should aim to achieve healthy, inclusive and safe places which… enable and support healthy lives, through both promoting good health and preventing ill-health, especially where this would address identified local health and well-being needs and reduce health inequalities between the most and least deprived communities."*

19.1.5 In response, the potential impact of the Proposed Development on human health during the construction, operation and decommissioning phases is assessed in detail in **ES Volume 2, Chapter 16, Human Health [EN010159/APP/6.16].** The assessment considers both physical and mental health effects across all phases of the Proposed Development.

19.1.6 The design of the Proposed Development has evolved to reflect feedback received concerning assets and environmental matters which are considered to be important locally, further details on this can be found within **ES Volume 2, Chapter 16, Human Health [EN010159/APP/6.16] and ES Volume 2, Chapter 11: Landscape and Visual [EN010159/APP/6.11].** The design of the Proposed Development now incorporates:

- A break in the arrays at the northeastern boundary, allowing The Woodland Trust access to Road Wood and to retain ecological connectivity;
- Removal of arrays to maintain visual connectivity between the Fledborough Viaduct and Fledborough Village;

- Setbacks to the south of Ragnall Village and offsets of up to 50 metres from Main Street;
- Land between North Clifton and South Clifton removed from the Proposed Development to maintain perceived connectivity between the villages;
- Bespoke buffers and setbacks to individual properties based on the home visits and consultation responses; and
- Solar panels offset by at least 15 metres and up to 180 metres from PRoWs.

19.1.7 The above measures affect all phases of the Proposed Development. As a consequence, the participatory approach has resulted in additional mitigation and enhancement areas being secured and contributing towards mitigation of adverse mental health effects.

19.1.8 **Table 16.12 of ES Volume 2, Chapter 16, Human Health [EN010159/APP/6.16]** sets out a summary of the likely significant environmental effects considered. There are no significant adverse effects anticipated. There are beneficial significant effects predicted on:

- Climate change mitigation and adaption; and
- Wider societal infrastructure and resource.

Summary

19.1.9 **ES Volume 2, Chapter 16, Human Health [EN010159/APP/6.16]** sets out the proposed effects in relation to human health and identifies that there are no adverse effects during construction and decommissioning. However, during the operation (and maintenance) phase there are beneficial effects around energy infrastructure and impact on standard of living.

19.1.10 It is considered that the Proposed Development addresses the human health policies and guidance set out within EN-1, the NPPF and the relevant local policies.

20. Socio-Economics

20.1.1 This section reviews the Proposed Development in the context of planning policy for socio-economics. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

20.1.2 Paragraph 5.13.2 of EN-1 states that applicants should undertake and include in their application an assessment of socio-economic impacts where the project is likely to have impacts at a local and regional level.

20.1.3 EN-1 paragraph 5.13.4 outlines that the assessment should consider all relevant socio-economic impacts. The full wording of the paragraph, along with the detailed project response, is set out in Table 1 of the **Policy Compliance Document [EN010159/APP/5.6].**

20.1.4 Paragraph 5.13.9 of EN-1 notes that SoS should have regard to 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". Paragraph 5.13.11 of EN-1 requires the SoS to consider relevant positive provisions the applicant has made or is proposing to make to mitigate impacts and any legacy benefits that may arise.

20.1.5 **ES Volume 2, Chapter 17, Socio-Economics [EN010159/APP/6.17]** considers the potential effects of the Proposed Development on employment. The assessment finds that the majority of socio-economic beneficial impacts experienced during the construction and decommissioning phases relate to the creation of employment opportunities and increased spend on local services. Once operational, impacts on local labour market arising from operational and maintenance jobs would be more limited.

20.1.6 The estimated duration of the decommissioning phase is expected to occur over two years and may be undertaken in stages, and it is anticipated that the employment effects over this period will be similar to the construction phase, although over a shorter term. These impacts are assessed as having moderate beneficial impacts on the local economy.

20.1.7 Overall **ES Volume 2, Chapter 17, Socio-Economics [EN010159/APP/6.17]** concludes that the construction phase of the Proposed Development will deliver a moderate and minor beneficial effect, which is significant, to the local economy in terms of employment. The implementation of the proposed **Outline Skills, Supply Chain and Employment Plan [EN010159/APP/7.8]** is aimed at maximising these benefits for the study area economy.

20.1.8 Paragraph 5.13.8 of EN-1 refers to the possible requirement to mitigate adverse socio-economic effects. Mitigation measures to manage and minimise potential socio-economic effects are set out in the **oCEMP [EN010159/APP/7.4], the**

oLEMP [EN010159/APP/7.7], the oDEMP [EN010159/APP/7.6], and the Outline Skills, Supply Chain and Employment Plan [EN010159/APP/7.8].

20.1.9 The **Outline Skills, Supply Chain and Employment Plan [EN010159/APP/7.8]** is aimed at maximising local economic benefits and both are secured by way of requirement in the **Draft DCO [EN010159/APP/3.1].**

20.1.10 The Applicant considers that the commitments made within the **Outline Skills, Supply Chain and Employment Plan [EN010159/APP/7.8]** align with the intentions of paragraph 5.13.12 of EN-1. This paragraph advises that the SoS may wish to include a requirement of such a plan which details "*arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted*". The **Outline Skills, Supply Chain and Employment Plan [EN010159/APP/7.8]** addresses each of the matters detailed in 5.13.12 and therefore the Applicant considers the Proposed Development to be compliant with the requirements of the policy in this regard.

20.1.11 Paragraph 39 of the NPPF advises that developments that seek to improve the economic, social, and environmental conditions of an area should be supported. It is considered that the results of the assessment of socio-economic effects included in **ES Volume 2, Chapter 17, Socio-Economics [EN010159/APP/6.17]**, accords with the NPPF with regard to socio-economic impacts.

Summary

20.1.12 **ES Volume 2, Chapter 17, Socio-Economics [EN010159/APP/6.17]** sets out the proposed impacts in relation to socio-economics and identifies a number of beneficial effects around employment, and existing users of PRoWs. However, it is also noted that beneficial impacts on employment are identified as being significant in EIA terms.

20.1.13 Paragraph 5.13.10 advises that the SoS may conclude that limited weight is given to assertions of socio-economic impacts that are not supported given the importance of energy infrastructure (i.e. the benefits of proposed energy infrastructure development on a national scale). The Applicant considers that the benefits secured are tangible. In any event, the Applicant considers the Proposed Development to be compliant with the aforementioned requirements relating to socio-economic effects in EN-1 and acceptable in this regard.

21. Cumulative Effects

21.1.1 This section reviews the Proposed Development in the context of planning policy for cumulative effects. This section should be read in conjunction with the **Policy Compliance Document [EN010159/APP/5.6].**

21.1.2 **ES Volume 2, Chapter 18, Cumulative Effects [EN010159/APP/6.18]** presents a Cumulative Effects Assessment (CEA), considering two types of cumulative effects, intra-project effects and inter-project effects.

21.1.3 Paragraph 2.10.26 of EN-3 states that "*applicants should consider the cumulative impacts of situating a solar farm in proximity to other energy generating stations and infrastructure.*"

21.1.4 Policy S14: Renewable Energy of the Central Lincolnshire Joint Plan states that "*proposals for renewable energy schemes, including ancillary development, will be supported where the … cumulative impacts on the following considerations are, or will be made, acceptable."*

21.1.5 Policy ST49 of the Bassetlaw Local Plan 2020-2038 states that "*development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy including community energy schemes will be supported subject to the satisfactory resolution of … cumulative impacts.*"

Intra-Project Effects Assessment

21.1.6 In terms of Intra-related effects, consideration of the receptors against which the Intra-project assessment has been undertaken for significant and no significant effects is presented within **ES Volume 3, Appendix 18.1: Intra-project Effects Assessment [EN010159/APP/6.21]**. This indicates that the effects arising from the Proposed Development in isolation that are deemed not significant, would not in combination give rise to significant environmental effects.

21.1.7 As demonstrated through the assessment in the ES, there are both construction and decommissioning and operational intra-related effects.

21.1.8 In terms of construction and decommissioning the significant environmental effects identified by the Proposed Development in isolation, these are focused around cultural heritage and Landscape and Visual. In respect of Cultural Heritage –

- An indirect, temporary local effect of moderate significance to the setting of Pigeoncote and Attached Stable Blocks and Outbuilding at Hall Farm;
- An indirect, temporary local effect of minor significance to the setting of Manor House;

- An indirect, temporary local effect of moderate to major significance to the setting of Whimpton Moor medieval village and moated site;
- An indirect, temporary local effect of moderate to major significance to the setting of Church of St Gregory (grouping);
- An indirect, temporary local effect of moderate significance to the setting of Roman Vexillation Fortress;
- An indirect, temporary local effect of moderate to major significance to the setting of Church of St Leonard (grouping);
- An indirect, temporary local effect of moderate to major significance to the setting of Ragnall House, Barn At Ragnall Stables;
- An indirect, temporary local effect of moderate to major significance to the setting of Ragnall Hall And Attached Outbuildings; and
- An indirect, temporary local effect of moderate significance to the setting of Skegby Manor and Pigeoncote.

21.1.9 In respect of Landscape and Visual, the effects are –

- Construction
    - A direct, short term adverse effect of major significance to the Site's landscape character;
    - Direct, short term adverse effects of moderate to major significance to the landscape character of published landscape character areas (ENS PZ 01: North Clifton Village Farmlands; TW PZ 20: Dunham on Trent Village Farmlands; TW PZ 44: Fledborough Holme River Meadowlands; MNF PZ 09: East Drayton; MNF PZ 12: Normanton-On-Trent);
    - Direct, short term adverse effects of moderate to major significance to the landscape character of published landscape character areas (Fledborough; North Clifton; Ragnall; Skegby); and
    - Direct, short term adverse effects of moderate to major significance to selected viewpoints.
- Decommissioning

- A direct, short term adverse effect of major significance to the Site's landscape character;

- Direct, short term adverse effects of moderate significance to the landscape character of published landscape character areas (ENS PZ 01: North Clifton Village Farmlands; TW PZ 20: Dunham on Trent Village Farmlands; TW PZ 44: Fledborough Holme River Meadowlands; MNF PZ 09: East Drayton; MNF PZ 12: Normanton-On-Trent);

- Direct, short term adverse effects of moderate to major significance to the local village character areas (Fledborough); and

- Direct, short term adverse effects of moderate to major significance to selected viewpoints.

21.1.10 In addition to construction and decommissioning, there are also intra-related effect interactions once the Proposed Development is Operational. The operational interractions are focused around landscape and Visual and Cultural Heritage.

21.1.11 In terms of landscape, the intra-related effects include –

> At year 1:

- Direct, short term major adverse effects to limited number of people travelling along the PRoW network that pass adjacent to or through the Order Limits, short sections of the local road network, as well as residents of isolated farmsteads to the east of the A1133;

- Direct, short term adverse effects of moderate to major significance to the landscape character of published landscape character areas (ENS PZ 01: North Clifton Village Farmlands; TW PZ 20: Dunham on Trent Village Farmlands; MNF PZ 09: East Drayton; MNF PZ 12: Normanton-On-Trent); and

- Direct, short term adverse effects of moderate to major significance to selected viewpoints.

> At year 15:

- Direct, long term moderate adverse effects to limited number of people travelling along the PRoW network that pass adjacent to or through the Order Limits, short sections of the local road network, as well as residents of isolated farmsteads to the east of the A1133.

- Direct, short term adverse effects of moderate significance to the landscape character of published landscape character areas (ENS PZ 01: North Clifton Village Farmlands; TW PZ 20: Dunham on Trent Village Farmlands);

- Direct, short term adverse effects of moderate to major significance to the local village character areas (Fledborough); and

- Direct, long term adverse effects of moderate to major significance to selected viewpoints.

21.1.12 In respect of Cultural Heritage –

- Indirect long term, local adverse effect of moderate significance to the setting of Whimpton Moor Medieval Village;

- Indirect, local adverse effect of moderate significance in the medium term to the setting of the Church of St Leonard (grouping);

- Indirect, local adverse effect of moderate significance in the medium term to the setting of Ragnall House Barn at Ragnall Stables; and

- Indirect, local adverse effect of moderate significance in the medium term to the setting of Ragnall Hall and Attached Outbuildings.

21.1.13 In conclusion, in terms of intra-related effects, there would be no significant intra-project cumulative effects during operation.

Inter-Project Effects Assessment

21.1.14 In addition to Intra-related project effects, there are also inter-related project effects and this is assessed within the **ES Volume 2, Chapter 18: Cumulative Effects [EN010159/APP/6.18]**. The Applicant has assessed the relationship between the Proposed Development and neighbouring applicarions. As indicated in the ES, each of the Other Developments were considered in respect of the aspects with regard to any overlap in temporal scope; the scale and nature of development and the potential effects of the Proposed Development along with embedded environmental measures.

21.1.15 The Applicant has ensured that consideration of potentially significant cumulative effects of the Proposed Development and the forthcoming application for the expansion of the High Marnham substation has been assessed and presented accordingly.

22. Conclusion and Planning Balance

22.1 Introduction

22.1.1 This section considers the conclusions of the earlier sections in terms of the need for, and other benefits of, the Proposed Development, and weighs this in the context of any harms identified and compliance with relevant national and local policy.

22.1.2 This Planning Statement sets out how the Proposed Development complies with the relevant planning policy and other matters that the Applicant considers to be important and relevant to the SoS's decision as to whether to grant development consent.

22.2 National Policy Statements

22.2.1 As set out earlier in this Planning Statement, the Application will be determined under Section 104 of the PA 2008 and the NPSs provide the primary basis for the SoS's decision and the Application should be determined in accordance with them.

22.2.2 As set out in Section 6 of this Planning Statement, the relevant Section, 104(2) of the Planning Act 2008 requires that in deciding an application for development consent the SoS must have regard to:

a) Any relevant national policy statement;

b) The appropriate marine policy documents;

c) Local impact reports;

d) Prescribed matters, and;

e) Any other matters which the SoS thinks are both important and relevant to the SoS's decision.

22.2.3 In respect of part a), above the national policy statements which have effect in relation to the Proposed Development are:

- EN-1 Overarching National Policy Statement for Energy;
- EN-3 National Policy Statement for Renewable Energy Infrastructure; and
- EN-5 National Policy Statement for Electricity Network Infrastructure.

22.2.4 In regard to point b), above, there are no relevant marine policy documents to the Proposed Development therefore the SoS is not required to consider this matter.

22.2.5 In regard to point c), above, Local Impact Reports (LIRs) are expected to be submitted by the host authorities. The Proposed Development is in accordance with the relevant local policy, as set out in the **Policy Compliance Document [EN010159/APP/5.6].**

22.2.6 In regard to point d), above, it has been demonstrated that a decision to grant a DCO for the Proposed Development would have regard to the matters prescribed by Regulation 3 and 7 of the Infrastructure Planning (Decisions) Regulations 2010 (as amended). The Proposed Development has regard to preserving heritage assets and their setting as set out in Section 12 of this Planning Statement, **ES Volume 2, Chapter 8, Buried Heritage, [EN010159/APP/6.8]** and **ES Volume 2, Chapter 9, Cultural Heritage [EN010159/APP/6.9].** Biodiversity and conservation enhancement is also addressed in Section 9 of this Planning Statement and **ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6].**

22.2.7 Section 104(3) of the Planning Act 2008 requires that applications for development consent must be determined by the SoS in accordance with any relevant national policy statement except to the extent that one or more of subsections 104(4) to 104(8) apply.

22.2.8 None of the limited exceptions in subsections 104(4) to 104(8) of Planning Act 2008 are engaged, for the reasons summarised below.

22.2.9 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 Proposed Development would lead to the UK being in breach of any of its international obligations.

22.2.10 Section 104(5) applies if deciding an application in accordance with any relevant national policy would lead to the SoS being in breach of any duty imposed on the SoS by or under any enactment. There is no evidence to suggest that the granting of the DCO for the Proposed Development would lead the SoS to be in breach of any such duty.

22.2.11 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 Proposed Development would be unlawful by virtue of any enactment.

22.2.12 Section 104(7) applies if the adverse impact of a proposed development would outweigh its benefits. Section 8 of this Planning Statement sets out how the Proposed Development is in accordance with EN-1, EN-3 and EN-5 and relevant local policy. The overall planning balance of the Proposed Development is considered below. The limited adverse impacts of the Proposed Development are not considered to outweigh its substantial benefits.

22.2.13 Section 104(8) applies if any condition prescribed for deciding an application otherwise in accordance with a NPS is met. There is no evidence to suggest that any condition is met in relation to the Proposed Development.

22.2.14 At the heart of the policy and framework delivered in NPSs EN-1, EN-3 and EN-5 is the legally binding requirement for the UK to achieve Net Zero by 2050. Net Zero by 2050 is the ultimate target but the target milestones ahead of that are perhaps even more critical as they establish the pathway to ensure that Net Zero is achievable. Section 3 of the **Statement of Need [EN010159/APP/7.1]** sets out the wider policy context and the progress which is being made towards the targets. Critically, it shows that urgent action is required to meet the 2030 and 2035 emissions targets and illustrates the urgency of need for low carbon generating infrastructure such as the Proposed Development and the timeframe in which it is able to start contributing to the national energy supply.

22.2.15 Section 8 of this Planning Statement and the **Policy Compliance Document [EN010159/APP/5.6]** have considered the Proposed Development and its potential impacts against the detailed policy criteria set out in NPSs EN-1, EN-3 and EN-5.

22.2.16 The **Environmental Statement [EN010159/APP/6.1-23]** provides a robust assessment of the potential impacts of the Proposed Development and finds that there are limited significant adverse residual effects remaining after mitigation, the receptors with residual significant adverse effects are:

- Published Landscape Character Areas in relation to construction, operation and decommissioning;
- Local Village Character Areas in relation to construction, operation and decommissioning;
- Visual in relation to operation;
- Order Limits Site Landscape Character Year 1 in relation to operation;
- Impact on physical properties of soil, or on ALC grade of soil, or impact on soil quality due to damage to field drains of very high sensitivity soils in relation to construction, operation and decommissioning;
- Impact on the availability of agricultural land on of very high sensitivity soils in relation to operation;
- Cultural heritage in relation to the visual effects, increase in noise and dust of construction and decommissioning; and
- Buried heritage in relation to full or partial removal of receptors from excavations and from hard and soft landscaping.

22.2.17 Significant beneficial effects are likely on receptors in relation to:

- Biodiversity in relation to the overall effect on coastal and floodplain grazing marsh HPI, hedgerows and tree lines, ponds HPI and non-HPI, permanently wet ditches, other neutral grassland, breeding birds, water vole, reptiles, brown hares and hedgehogs of the Proposed Development
- Climate change mitigation and adaptation in relation to greenhouse gas emissions;
- Impact on soil quality of very high sensitivity soils;
- Employment in relation to construction and decommissioning;
- Wider societal infrastructure and resource in relation to contribution towards energy infrastructure and impact on standard of living.

22.2.18 As noted within EN-1 paragraphs 3.2.6 – 3.2.8, the Secretary of State has determined that there is a need for projects of this calibre and therefore the Proposed Development should be given substantial weight in terms of their contribution to the urgent demonstrated need.

22.2.19 Section 4 of this Planning Statement sets out the demonstrable benefits that will be delivered by the Proposed Development should consent be granted. In addition to the generation of a significant quantity of low carbon energy which makes a meaningful contribution to the UK's legally binding net zero commitment and is a source of domestic energy security that limits UK consumers exposure to volatile energy prices, the Proposed Development will also deliver:

- The provision of battery storage which maximises efficiency of the land and grid capacity, as encouraged by NPS EN-3;
- Ecological enhancement measures that will result in a secured commitment to deliver a minimum of 10% in Biodiversity Net Gain;
- Provision of new permissive paths;
- Significant new tree and hedgerow planting (approximately 15km);
- At peak construction time, creation of approximately 750 construction jobs with average of 554 full time jobs over the two-year construction phase;
- Creation of 15 operational jobs;

- Significant socio-economic effects are also anticipated through an investment of approximately £1billion during construction and 4,000 FTE jobs across the whole value chain[2].
- Provision of outline Employment, Skills and Supply Chain Plan which will:
- Increase direct and indirect employment and opportunities;
- Lever potential of the Proposed Development and other similar schemes in the local area, to encourage the next generation to take up careers in the renewable energy sector and invest their futures in Lincolnshire and Nottinghamshire;
- Engage effectively with local businesses and wider supply chain; and
- Assist in development and dissemination of local knowledge and skills relating to renewable energy infrastructure.

22.2.20 The combined nature of these additional benefits is considered to carry substantial weight in favour of the Proposed Development.

22.3 The Planning Balance

22.3.1 The Applicant set out with the objective to deliver a significant quantity of renewable energy, of NSIP scale, to the National Grid and contribute to the UK's wider decarbonisation of energy supply. Through the careful selection of an appropriate site which benefited from suitable topography and irradiance and connection to the National Grid through to the detailed design measures the Applicant has developed a proposal which is sensitive to local context.

22.3.2 Paragraph 3.2.6 of EN-1 states that the SoS *"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."* Paragraph 3.2.7 goes on to state that *"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."*

22.3.3 Paragraph 4.1.3 of EN-1 states that *"given the level and urgency of need for infrastructure of the types covered by the energy NPSs set out in Part 3 of this*

[2] These estimates are now somewhat dated and include all economic effects across the entire value chain, from manufacture of the solar modules themselves, to subsequent coatings/treatments of the modules as well as transmission and distribution. Hence not all is likely to benefit UK companies. Given the uncertainties associated with these estimates, this does not form part of the EIA assessment, but they do indicate that, a national level at least, the Proposed Development has the potential to support thousands of jobs along the total supply chain

NPS, the Secretary of State will start with a presumption in favour of granting consent to applications for energy NSIPs."

22.3.4 Paragraph 4.2.4 of EN-1 states that the *"government has … concluded that there is a critical national priority (CNP) for the provision of nationally significant low carbon infrastructure."* Paragraph 4.2.5 confirms that solar development falls within the category of CNP by stating that low carbon infrastructure for the purposes of that policy means all onshore and offshore electricity generation that does not involve fossil fuel combustion.

22.3.5 Paragraph 3.3.63 of EN-1 states that *"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."*

22.3.6 The policy landscape set by the NPSs EN-1, EN-3 and EN-5 illustrates the Government's position in a very clear way and confirms that the principle of the development is not just accepted, it is of critical importance and priority at a national level. This landscape paves the way for well-considered projects to receive favourable recommendations from the Planning Inspectorate and an eventual grant of consent by the SoS. However, despite the strength of the policy it does not immediately imply that all proposals for such infrastructure will receive approval. There are a number of tests and justification required to be demonstrated by the Applicant as to why a chosen site is an appropriate location for the proposed infrastructure and that any adverse environmental impacts have been mitigated as far as practicable with the application of the mitigation hierarchy. NPS EN-1 also places significant emphasis on the importance of good design throughout the NSIP process. This means more than sensitive siting of infrastructure and includes consistent decision making based on sound environmentally led principles.

22.3.7 Good design has been embedded into the Proposed Development from the outset of the site selection process with the search process seeking to avoid areas of higher landscape sensitivity. In this context the first tier of the mitigation hierarchy, has been applied as there are no local or national landscape designations which would be impacted by the Proposed Development. At a site-specific level, a comprehensive mitigation package has been embedded into the design of the Proposed Development to date with further commitments made to minimise any likely significant impacts. Given the nature of the Proposed Development, the sensitivity of receptors and the existing rural context mean that there are some impacts which cannot be mitigated. The Applicant considers given the acute need for the Proposed Development it has taken all reasonable measures to minimise these likely significant effects.

22.3.8 Paragraph 5.10.5 of EN-1 recognises that *"virtually all nationally significant energy infrastructure projects will have adverse effects on the landscape, but there may also be beneficial landscape character impacts arising from mitigation."*

22.3.9 Regarding land use, the Applicant acknowledges that there will be approximately 660.9 hectares of BMV land that will be temporarily used for the purposes of accommodating Solar PV Development and associated infrastructure.

22.3.10 As with landscape impact, the general nature of the type of land that lends itself to large scale solar development is rural and often in agricultural use. Nevertheless, the Applicant has sought to limit the amount of higher-grade agricultural land within the Site and once the Site was defined and the detailed characteristics of the soil quality were understood, the Applicant sought to avoid the use of BMV, where possible.

22.3.11 Paragraph 2.10.29 of EN-3 states that *"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."* Additionally, it is important to note that there is no planning policy which requires agricultural land to be farmed. Indeed, farmers are actively encouraged to take land out of arable use to help regenerate soil and combat the biodiversity crisis.

22.3.12 The land to be used will be used temporarily with the land being returned to agricultural use at the end of the Proposed Development's lifetime. Nevertheless, the ES has confirmed that significant effects are likely to arise, and limited weight may be applied against the Proposed Development in the planning balance.

22.3.13 The Proposed Development makes a significant contribution towards the UK's solar targets for reaching Net Zero. The Applicant is well resourced and in a strong position to deliver the Proposed Development and within a timeframe that means the generation of low carbon energy will also occur in a timely manner and contribute to 2030 and 2035 pathway targets.

22.3.14 As a project of CNP, the Proposed Development benefits from the strongest policy position set out in national planning policy. EN-1 sets out a presumption in favour of energy related development. This Planning Statement confirms that the Proposed Development complies with EN-1, EN-3 EN-5, the NPPF and relevant local policy documents.

22.3.15 Where significant residual adverse effects have been identified, the Applicant has demonstrated its application of the mitigation hierarchy and careful consideration of design. As per paragraph 4.2.11 of EN-1, where impacts on landscape and visual receptors and soils and agricultural land which cannot be avoided, reduced or mitigated, the impacts will remain. Paragraph 4.2.12 of EN-1 sets out that "*the cumulative impacts of multiple developments with residual impacts should also be considered*."

22.3.16 Paragraph 4.2.15 of EN-1 states *"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."*

22.3.17 In the case of the Proposed Development, the residual significant adverse effects are limited to temporary effects on cultural heritage, biodiversity, landscape and visual and land and soils. It is considered that these residual impacts do not meet the "exceptional circumstances" test and therefore do not warrant refusal. Further details on these can be found in **ES Volume 2, Chapter 19: Summary of Significant Environmental Effects [EN010159/APP/6.19]**.

22.3.18 The Proposed Development does not have an unacceptable interference with human health and public safety, defence, irreplaceable habitats or pose an unacceptable risk to achievement of net zero. In addition, there are a significant number of additional benefits that would be achieved by the Proposed Development, as outlined above.

22.3.19 The balance is firmly in favour of approval. The Proposed Development is a well-considered and effectively designed proposal that responds to the locality and is sensitive to the local environment. It is therefore concluded that Development Consent should be granted.

References

Ref 1: Planning Act 2008 ('PA 2008');

Ref 2: Overarching National Policy Statement for Energy 2023 (NPS EN-1) (designated in January 2024);

Ref 3: National Policy Statement for Renewable Energy 2023 (NPS EN-3) (designated in January 2024);

Ref 4: National Policy Statement for Electricity Networks Infrastructure 2023 (NPS EN-5) (designated in January 2024);

Ref 5: Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations');

Ref 6: NIC (Developing Design Principles for National Infrastructure (NIC, 2018));

Ref 7: Planning Inspectorate, Nationally Significant Infrastructure Projects: Advice on Good Design (October 2024)**;**

Ref 8: Ministry of Housing, Communities and Local Government and Department for Levelling Up, Housing and Communities, National Planning Policy Framework (2023);

Ref 9: Lincolnshire County Council, The Lincolnshire Minerals and Waste Plan (Core Strategy and Development Management Policies adopted 2016 and Site Locations adopted 2017);

Ref 10: Lincolnshire County Council, Local Transport Plan 5**;**

Ref 11: Nottinghamshire County Council, Nottinghamshire Minerals Local Plan (Adopted March 2021);

Ref 12: Bassetlaw District Council, Bassetlaw Local Plan 2020-2038 (Adopted May 2024);

Ref 13: Central Lincolnshire Joint Strategic Planning Committee, Central Lincolnshire Local Plan (Adopted April 2023);

Ref 14: Newark and Sherwood District Council, Newark and Sherwood Local Development Framework Core Strategy & Allocations, Amended Core Strategy (Adopted March 2019);

Ref 15: Ministry of Housing, Communities and Local Government, Ministry of Housing, Communities & Local Government (2018 to 2021) and Department for Levelling Up, Housing and Communities, Planning practice guidance (Revised December 2024); and

Ref 16: Water Preferred Policy: Guidelines for the movement of abnormal indivisible loads

One Earth Solar Farm

Site Selection Report - Appendix 1

February 2025

Contents

1. Introduction

1.1 Background

1.1.1 This Site Selection Report (SSR) sets out the site selection process undertaken by the Applicant to identify the location of the Proposed Development, taking into consideration a range of planning, environmental and operational factors.

1.1.2 As explained later in this report, there is no legal or policy requirement to demonstrate that the Proposed Development is the best location for a solar farm, however it is an appropriate location for a solar farm and there are certain policy preferences, for instance considering previously developed land before greenfield land and lower quality agricultural land before higher quality land. This report explains the process undertaken by the Applicant in having regard to these important factors.

1.1.3 There are also certain legal and policy tests regarding the consideration of alternative sites, for instance where there would be an adverse effect on the integrity of a European protected site, which is not engaged in this case, the consideration of land within the areas of flooding, which is assessed within this report, or where land is proposed to be acquired compulsorily. In this case, the Applicant is aiming to secure the principal land parcels to deliver the solar farm by voluntary agreement, although compulsory purchase powers are still being sought to ensure deliverability.

1.2 Proposed Development

1.2.1 The Proposed Development is defined as a Nationally Significant Infrastructure Project (NSIP) and will require a Development Consent Order (DCO) from the Secretary of State for Energy Security and Net Zero due to its generating capacity exceeding 50 megawatts (MW).

1.2.2 For a full description of the Proposed Development, see **ES Volume 1, Chapter 5: Description of the Proposed Development [EN010159/APP/6.5].**

1.2.3 All land within the Order Limits will be included in the Development Consent Order (DCO) Application, this will comprise the following:

- PV Modules;
- Mounting Structures;
- Power Conversion Stations (PCS);
- Battery Energy Storage Systems (BESS);
- Onsite Substations and Ancillary Buildings;

- Low Voltage Distribution Cables;
- Grid Connection Cables;
- Fencing, security and ancillary infrastructure;
- Access Tracks; and
- Green Infrastructure (GI).

1.3 Purpose of this Report

1.3.1 The purpose of this report is to present the reasons why the Proposed Development and Order Limits are located in this particular location.

1.3.2 **ES Volume 1, Chapter 4: Alternatives and Design Evolution [EN010159/APP/6.4]** and **The Design Approach Document [EN010159/APP/7.3]** explains the legal and policy background to the consideration of alternatives and how the design has developed having regard to environmental considerations.

1.3.3 **The Planning Statement [EN010159/APP/5.5]** to which this SSR is appended, explains the planning tests and policy background to the consideration of alternatives and the need for the project is explained within the **Statement of Need [EN010149/APP/7.1]** and summarised below for general context.

1.3.4 **The Design Approach Document [EN010159/APP/7.3]** discusses the ongoing evolution of the Proposed Development following the selection of the site and demonstrates how it achieves good design. **The Design Approach Document [EN01059/APP/7.3]** includes information on how the detailed selection of land parcels for solar, BESS and associated infrastructure has developed, considering key environmental and planning considerations.

2. Planning Policy

2.1 National Planning Policy

Overarching National Policy Statement for Energy (EN-1)

2.1.1 The compliance of the Proposed Development with planning policy is set out in the main body of this Planning Statement, notably, Chapter 8, to which this Site Selection Report is an Appendix. This section sets out the policy from EN-1 and EN-3 that is relevant to the consideration of matters relating to site selection.

2.1.2 There is a strong relationship between the site selection and consideration of alternatives. Site selection sets out the process which an applicant has followed in order to determine the appropriate location for a proposed development. It should demonstrate a trail of logical steps followed in order to determine a location that will deliver the objectives of the project. These steps will normally be driven by a number of technical and environmentally led criteria, to demonstrate that the location is able to accommodate functional requirements and has also been subject to robust consideration of environmental constraints and sought to avoid areas of highest sensitivity.

2.1.3 The application of these steps will generally lead to a number of options, or sometimes alternative sites, which an applicant will then consider and determine a favoured option to pursue. In this regard, paragraph 4.3.9 of EN-1 states that "*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*".

2.1.4 However, EN-1 at paragraph 4.3.15 states that: "*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*." **ES Chapter 4: Alternatives and Design Evolution [EN010159/APP/6.4]** addresses the matter of alternatives from an EIA Regulations compliance perspective but also provides consideration against NPS policy, where considered relevant.

2.1.5 The consideration of alternative sites and ways of meeting the identified project need is therefore an implicit part of the site selection process. This section therefore identifies policies which are relevant to both alternatives and site selection but recognises that each are subject to their own considerations and policy compliance requirements.

2.1.6 EN-1 paragraph 4.3.16 does also note that there are certain times that policy does require the consideration of alternatives.

2.1.7 The circumstances relating to when they are required and the Applicant's response to these circumstances are set out, below:

- Where a scheme would involve the compulsory acquisition of land or interests in land (EN-1 paragraph 4.3.9). In this case, the Applicant is aiming to secure the principal land parcels to deliver the solar farm by voluntary agreement, although compulsory acquisition powers are still being sought to ensure deliverability. Please see the Statement of Reasons [EN010159/APP/4.1].
- Where a scheme would be located near a sensitive receptor site for air quality (EN-1 paragraph 5.2.7). The Proposed Development is not within an AQMA and the closest AQMA is approximately 11.1km to the east of Lincoln City Centre.
- Where a scheme would lead to significant harm to biodiversity and geological conservation interests (EN-1 section 5.4). The Proposed Development would not likely give rise to significant harm on such receptors, as reported in ES Volume 2, Chapter 6: Biodiversity [EN010159/APP/6.6], Chapter 7: Hydrology and Hydrogeology [EN010159/6.7] and Chapter 8: Land and Soils [EN010159/APP/6.8].
- Where a scheme would result in an adverse effect on the integrity of a European site that cannot be avoided (EN-1 section 5.4.4). A Habitat Regulation Assessment Screening Report [EN010159/APP/5.2] has been submitted alongside the DCO Application which confirms the Proposed Development would not result in an adverse impact on the integrity of a European Site, therefore there is no requirement to consider alternatives in this regard.
- Where a scheme would be located within, or partially within, Flood Zone 2 or Flood Zone 3 (EN-1 section 5.8). In this case the Sequential Test should be undertaken. If following application of the Sequential Test, it is not possible for the project to be located in areas of lower flood risk the Exception Test can be applied, which provides a method of allowing necessary development to go ahead in situations where suitable sites at lower risk of flooding are not available. With regard to applying the Sequential Test, paragraph 5.8.23 of EN-1 sets out that consideration of alternative sites should take account of the policy on alternatives described in section 4.3 of EN-1. The majority of the Order Limits is within Flood Zones 2 and 3. The Flood Risk Assessment Appendix 7.2 to the ES Volume 2, Chapter 7: Hydrology and Hydrogeology [EN010159/APP/6.6], and Section 8.3 of this Planning Statement advises how the Sequential Test has been met and how the Exceptions Test has also been applied and met.
- Where a development would be located within a National Park, the Broads or an AONB (now National Landscape) (EN-1 Section 5.10). The Proposed Development is not located in or near any designations, therefore no further consideration of alternatives in this regard is required.

2.1.8 Paragraph 4.3.22 advises that, in considering alternatives, the SoS should be guided by the following principles:

“The consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner; and

Only alternatives that can meet the objectives of the proposed development need to be considered.”

2.1.9 The practical application of the second bullet point above is that effectively smaller scale projects should not be considered as a reasonable alternative since they would not be able to deliver the scale of energy generation enabled by the agreed grid connection The objectives of the Proposed Development are set out in more detail in **The Design Approach Document [EN010159/APP/7.3]**

2.1.10 Paragraph 4.2.24 states that the Secretary of State (SoS) "*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*." In a similar sense to paragraph 4.3.9, this paragraph recognises that a proposed development does not have to articulate that it is the best option, moreover, that it is acceptable within the context of the relevant policy provisions. This also recognises that alternative sites may come forward under other applications but also, critically, that proposals should be determined on their individual merits in accordance with relevant policy which is the basis for decision making in planning in England and Wales.

2.1.11 Paragraph 4.2.25 states that 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*".

2.1.12 Paragraph 5.8.21 advises 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. Where it is not possible to locate development in low-risk areas, the 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*". The Sequential Test and its implications in relation to site selection are addressed in Section 8 of this Planning Statement.

National Policy Statement for Renewable Energy Infrastructure (EN-3)

2.1.13 EN-3 provides technology specific policy in relation to solar PV development which includes guidance on site selection matters. These matters are dealt with in greater detail in Section 3 of this report, however, the context of the policy is summarised here.

2.1.14 EN-3 sets out that there are a number of factors which are likely to influence site selection, namely:

- Irradiance and site topography
- Network Connection
- Proximity of a site to dwellings
- Agricultural land classification and land type
- Accessibility
- Public rights of way
- Security and lighting

2.1.15 Paragraphs 2.10.19 – 2.10.20 advise that irradiance will be a key consideration for applicants as it will impact the amount of electricity that can be generated, and that irradiance can be influenced by topography.

2.1.16 Paragraphs 2.10.21 - 2.10.26 discuss mostly technical matters relating to the network connection. Importantly at 2.10.14 and 2.10.25 it recognises that distance to a connection can have a significant effect on project viability and that applicants may *"may choose a site based on nearby available grid export capacity".*

2.1.17 Paragraph 2.10.27 explains that NSIP scale development may have a significant zone of visual influence recognising that likely impacts relate to visual amenity and glint and glare. These topics are considered in detail in Section 8 of this Planning Statement.

2.1.18 Paragraphs 2.10.28 - 2.10.34 relate to agricultural land classification and land type. It sets out a preference for the use of non or lower grade agricultural land but accepts that: land type should not be a predominating factor in site selection; that solar development is not prohibited on BMV, and that large scale solar is likely to include some agricultural land. A detailed response to these paragraphs is set out in the following Section of this report and Section 8 of this Planning Statement.

2.1.19 Paragraphs 2.10.35 - 2.10.39 discuss matters relating to accessibility and recognises that NSIP scale solar is likely to be located in rural areas and access is likely to be a significant factor in site selection. This is dealt with in Section 3 of this report and under Traffic and Transport in Section 8 of this Planning Statement.

2.1.20 Paragraphs 2.10.40 - 2.10.45 discuss public rights of way. It acknowledges temporary closures may be required but efforts should be made to ensure continued use during construction and operation. It also advises that applicants should seek to ensure continued recreational use while seeking opportunities to facilitate enhancements. It requires that applications include a Public Rights of Way Management Plan, one of which is included within this application **Outline Public Rights of Way Management Plan [EN010159/APP/7.14].** Consideration of impacts on PRoW from a planning policy perspective are set out in Section 8 of this Planning Statement, however, there are no guidelines set out in these paragraphs of the EN-3 about how these should be considered from a site

selection perspective, it is more focused on how PRoWs are addressed within an application and so there is no further assessment of these within this report.

2.1.21 Paragraphs 2.10.46 - 2.10.48 advise that security may be a key consideration for applicants and that natural features of a landscape may assist in site security as well as items such as CCTV and perimeter fencing. The nature of the landscape of the Proposed Development is such that natural features which may assist in security measures are less available, noting that it is a relatively flat or gently undulating topography. No further consideration is provided on this matter.

National Planning Policy Framework (NPPF)

2.1.22 The National Planning Policy Framework (NPPF) was published in March 2012 and last updated in December 2024. The NPPF sets out the Government's planning policies for England and how these are to be applied, including in respect of the development of agricultural land and renewable energy.

2.1.23 Paragraph 187(b) states that planning policies and decisions should take into account the economic and other benefits of the best and most versatile agricultural land. Furthermore, where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of a higher quality.

Planning Practice Guidance (PPG)

2.1.24 The policies contained within the NPPF are expanded upon and supported by the PPG which was originally published in March 2014 and has been updated periodically since with the most recent update being February 2024.

2.1.25 With regards to the location of solar farms, paragraph 013 (Ref: 5-013 20150327) cites the following factors that local planning authorities should consider:

2.1.26 Encouraging the effective use of land by focusing on large-scale solar farms on previously developed and non-agricultural land, provided that it is not of high environmental value.

2.1.27 Where a proposal involves greenfield land, whether the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land.

2.2 Local Planning Policy

2.2.1 Other planning policies may be considered by the Secretary of State as important and relevant considerations in relation to the site selection process for the Proposed Development. As with the NPPF, Development Plan Documents are prepared to guide decision-making on planning applications submitted to Local

Planning Authorities, rather than DCO applications for energy NSIPs which are to be decided by the Secretary of State, however, they have been considered insofar as they may assist with the site selection.

2.2.2 Not all of the development plans of the host authorities identify specific areas for renewable energy, but those that do are set out as follows.

2.2.3 Bassetlaw District Council includes a policy on renewable energy generation at policy ST49 of the Local Plan 2020-2038 (adopted May 2024), stating that "*Development that generates, shares, transmits and/or stores zero carbon and/or low carbon renewable energy including community energy schemes will be supported subject to the satisfactory resolution of all relevant site specific and cumulative impacts upon ... the best and most versatile agricultural land."*

2.2.4 The Central Lincolnshire Local Plan (Adopted April 2023) through Policy S67: Best and Most Versatile Agricultural Land, states that "*With the exception of allocated sites, significant development resulting in the loss of the best and most versatile agricultural land will only be supported if The need for the proposed development has been clearly established and there is insufficient lower grade land available at that settlement (unless development of such lower grade land would be inconsistent with other sustainability considerations); and The benefits and/or sustainability considerations outweigh the need to protect such land, when taking into account the economic and other benefits of the best and most versatile agricultural land."*

3. Site Selection Assessment

3.1 Site Selection Principles

3.1.1 This section sets out the background and approach to the site selection process which the Applicant has undertaken and has resulted in the land that is the subject of the Proposed Development being brought forward.

3.1.2 The report should be read in conjunction with **The Statement of Need [EN010159/APP/7.1]** which presents further detail on the need for the Proposed Development, its locational value and its contribution to meeting the UK's decarbonisation requirements.

3.1.3 In determining a suitable location for the Proposed Development, the Applicant sought to develop a single new Nationally Significant Infrastructure Project (NSIP) generating a minimum of 250 – 500 MW which:

- would contribute to meeting the UK's urgent need for low carbon energy generation;
- would be as close as possible to an available grid connection or part of the transmission network in which capacity exists;
- would avoid impacts on sensitive landscapes and environments as far as practicable;
- would be situated away from densely populated residential receptors and communities;
- would as far as possible be located outside of Best and Most Versatile (BMV) Agricultural Land based on the information known at the time taken from Provisional Agricultural Land Classification (ALC) (England) Map produced by Natural England, noting that this could not always be avoided depending on the overall land quality in the area;
- would not be located wholly within the Flood Zones, to ensure that more sensitive electrical infrastructure could be located outside of areas at risk of flooding;
- would be readily accessibly from existing strategic road network to facilitate construction access; and
- would be delivered on land which could be acquired voluntarily thereby avoiding or minimising the need for large scale compulsory acquisition (and, in the case of BMV Agricultural Land, could potentially help identify the least productive areas of land using local knowledge from farmers).

3.1.4 It is generally acknowledged that large scale solar developments require three fundamental attributes. EN-3 identifies these core attributes, amongst other considerations:

- Existence of sufficient land to deliver the project and meet the scale of the Proposed Development's aims;
- Availability and capacity of a suitable point of connection to the National Electricity Transmission Systems (NETS); and
- Solar irradiation levels to support the development's potential to produce an efficient and economic energy yield.

3.1.5 There are limited locations in the UK that satisfy all three of the above core site selection requirements (land availability and suitability, feasible irradiation levels and grid connection availability). For example, high population density and a large extent of designated land limits opportunities for large-scale solar development in South East of England. The need for proximity to existing and available grid connection capacity limits opportunities in the South West and East Anglia (where irradiation is also high).

3.1.6 Therefore, it cannot be expected that large-scale solar is located where irradiation is highest in the UK, only where suitable land is available, and in close proximity to existing grid substations and transmission lines with available capacity. Developments will therefore be proposed at locations which have a blend of the required characteristics albeit it is unlikely that each of the required characteristics will be at their most advantageous in a single location.

3.2 Regional Site Selection

Irradiance and Site Topography

3.2.1 EN-3 notes at paragraph 2.10.19 that "*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…will in turn be affected by surrounding topography…"*.

3.2.2 The East Midlands distribution network region and more specifically, Lincolnshire and Nottinghamshire, are generally flat with some areas of gently undulating topography, which has been confirmed to be suitable and beneficial for solar developments. This increases the likelihood of being able to identify a suitable site that can produce a large amount of electricity. Flat or gently south-facing slopes are most suitable and beneficial for solar. Therefore, this influenced the focus on the East Midlands area as the preferred location of the site. Topography, which is generally flat or gently undulating, is most suitable for solar from both a constructability and operational perspective to ensure that the site can produce a large amount of electricity. In addition, both Lincolnshire and Nottinghamshire benefit from the existence of large areas of undeveloped land and a generally sparce settlement pattern, meaning that there is the opportunity to identify sites of sufficient scale to deliver meaningful contributions to meeting net zero.

3.2.3 As a whole, irradiance in the local area is high to support solar development. As set out in the **Statement of Need [EN010159/APP/7.1]**, the Proposed

Development is located in an area with solar irradiation levels above average for the UK, and initial studies suggest that an average annual load factor before degradation at the site is sufficiently high to support the development of a large-scale ground mounted solar facility at the proposed location.

3.2.4 Topographically, the land which is the subject of the Proposed Development is considered highly suitable for solar development. The local area is subject to large open areas of undeveloped land, which is predominantly made up of gently undulating topography land with some areas being flat around the High Marnham substation.

3.2.5 This is not to say that large-scale solar sites will only be suitable in Lincolnshire and Nottinghamshire – available capacity should be maximised wherever possible, however, the areas particular topography and settlement pattern make it suitable for a solar project of this scale. The focus was therefore within the Lincolnshire/Nottinghamshire area.

Grid connection and Site Capacity

3.2.6 The East Midlands has for decades been at the hub of energy production for the UK. However, as the carbon intensive power production, such as coal and gas, has been turned off, the capacity in the National Grid infrastructure to collect and transfer the power remains.

3.2.7 Once the East Midlands area was identified, the starting point for the site selection process was identifying a potential point of connection with sufficient capacity to accommodate a large scale, viable solar farm within the region and the Applicant started engagement with the National Grid Electricity System Operator (NGESO) in Q4 2020 to discuss the potential opportunities for a new connection. The old High Marnham power station was identified and the driver for the broad location of the Proposed Development was being as close as possible to this chosen point of connection. Given the limited availability of connections into the NETS (which are necessary for the deployment of utility-scale solar), it is important that any available connection is used as efficiently as possible.

3.2.8 NGESO was the system operator for the NETS and the body within National Grid that made connection offers. The system operator changed to National Energy System Operator (NESO) on 1 October 2024. National Grid Electricity Transmission (NGET) operate as transmission owners and are the body of National Grid that will be responsible for owning and operating the proposed National Grid High Marnham Substation.

3.2.9 In discussions with National Grid and using the information on the Transmission Entry Capacity (TEC) Register, it was identified that the existing National Grid High Marnham substation had sufficient available capacity to enable the delivery and connection of a solar farm of up to 740MW.

3.2.10 The available grid connection to the existing High Marnham 275kV substation is an important factor in the site selection for the Proposed Development. During the initial site selection process, it was intended that the Proposed Development was to connect to the existing High Marnham 275kV substation. This substation is connected to an existing part of the NETS and has sufficient capacity to transmit the energy the Proposed Development would generate to consumers in the Midlands and beyond. NESO is developing plans to upgrade the High Marnham substation and the Chesterfield to High Marnham 275kV circuit to bring offshore wind power generation to the Midlands and beyond. The Proposed Development is not the triggering party for that proposed upgrade, but would connect to the upgraded infrastructure. It therefore remains a key benefit of the Proposed Development within the context of the significant need for new electricity networks infrastructure, that efficient use will be made of the capacity and the existing infrastructure in this location. The proximity to, and availability of capacity on the National Grid Network is key to the feasibility of solar farms and a driving factor for the chosen Order Limits.

3.2.11 Of the other seven 400kV National Grid substations located within 50km of High Marnham, four are already connection points for operational thermal generators. Two of these (Cottam and West Burton) and two others (Ratcliffe and Thorpe Marsh), like High Marnham, are connections formerly used by now decommissioned coal-fired power stations. Many of these connections and similar connection points further afield are being, or are proposed to be, re-purposed to connect new low-carbon generators to the NETS. As set out in the **Statement of Need [EN010159/APP/7.1]** no new schemes (i.e. schemes which are not already listed on the TEC Register) are able to connect to any of those substations within 50km of the High Marnham substations before 2032. This is somewhat inevitable given the urgent national need for renewable energy (specifically solar), as developments have already been proposed to use existing substation capacity where it occurs.

3.2.12 The engagement between the Applicant and NGESO to date resulted in the Applicant receiving a grid connection offer in the form of a Bilateral Connection Agreement (BCA) on the 10th of June 2021. A revised connection offer from the modification application was received on the 23rd of October 2024. This modification was accepted by the Applicant in December 2024.

3.2.13 The Applicant must also agree to comply with the Connection and Use of System Code (CUSC), which outlines the contractual framework for connecting to and using the NETS, as a requirement of the acceptance of the grid connection offer. This was entered into in July 2021.

3.2.14 Engagement with NGESO has continued since 2021 or a 740MW import and export connection, with a connection date of 2029.

3.2.15 Paragraph 2.10.25 of NPS EN-3 recognises, "*applicants may choose a site based on nearby available grid export capacity*" to "*maximise existing grid infrastructure,*

minimise disruption to existing local community infrastructure or biodiversity and reduce overall costs".

3.2.16 As this is included as a factor influencing site selection, it is taken to mean that the site needs to be able to accommodate a sufficient megawatt capacity to deliver a viable solar farm of greater than 50MW and also that the power output from a given grid connection should be maximised.

3.2.17 The applicant has secured a connection agreement with NGET to export and import up to 740MW of electricity to and from the National Grid.

3.2.18 The parameters that have been developed for the Application have sought to allow for a solar farm capable of generating up to 740MW to account for the normally applied factors:

- Degradation of panels over time;
- Seasonal and daily variation of solar irradiance; and
- Loss of power in the conversion from AC to DC.

3.2.19 This will ensure that One Earth Solar is able to optimise the available grid connection and generate as much clean power as possible each day over its lifetime.

3.2.20 Having identified the point of connection and securing a connection agreement in 2021, the Applicant undertook a site search within 10km of the grid connection point for suitable areas of land for NSIP scale solar development ('the search area'), driven by the desire to be as close to the point of connection as possible, in order to minimise the risk of environmental impacts, disruption to multiple landowners, challenges with crossings and, process losses, and the cost and delay of a longer cable route. It should be noted that there is relatively limited consistency between the size of search areas adopted for solar NSIPs, due to the significant variability of site and area characteristics, as an example, other consented solar NSIPs have adopted the following search areas:

- Longfield – 5km
- Mallard Pass – No search area adopted – suitable site found within close proximity to National Grid substation
- Cottam – 5km – 20km
- West Burton – 15km
- Gate Burton – 8km search area with constraints mapped to 15km

3.2.21 The site selection principles, set out in Section 3.1, drew on the principles that were later enshrined in the draft and subsequently adopted policy in EN-3 and provided a framework within which site selection was developed. These were not absolute

tests but laid the foundation for the balancing of different constraints and opportunities in order to both identify an appropriate site but also guide how the design of the Proposed Development developed over time. Desk-based environmental assessments were undertaken for all of the land within the 10km search area, and the site specific principles were applied to identify the most suitable parcels of land in proximity to the point of connection, which then lead the Applicant to begin the landowner discussions set out below.

Landowners

3.2.22 Following the identification of the capacity and recognising that the irradiance, topography and environmental characteristics of the area was generally favourable to large scale solar development (see further detail above), the Applicant started initial discussions with landowners to identify a suitable area of land, using local knowledge and an understanding of potentially willing landowners, for a solar farm capable of reflecting the capacity agreement with National Grid.

3.2.23 The initial discussions with landowners focussed on identifying sufficient land to accommodate the connection capacity, with sufficient additional land for mitigation and enhancement, as close as possible to the High Marnham substation. The Applicant did not seek to actively identify a single site of a particular size but was led by landowner discussions to identify potentially available land, each site's suitability for Solar Arrays in terms of size and topography, and whether it was likely to have environmental effects that were, or could be made to be, acceptable, having regard to the factors discussed below. Using local knowledge, voluntary agreements with landowners also helped the Applicant to identify sites that were least productive (in terms of BMV land), or otherwise minimised environmental effects.

3.2.24 It is worth noting that all of the landowners within the Order Limits were agreeable in principle to leasing their land for the Proposed Development (thus limiting the need and scope for compulsory acquisition powers). In considering sites further from the substation, it was noted that as well as the environmental matters discussed above and below such sites were made up of unwilling landowners or would create smaller, irregular field boundaries which landowners would not prefer in terms of ability to farm the land outside of the Proposed Development and also places restrictions in terms of operation and maintenance of the Proposed Development.

3.2.25 NPS EN-1 at paragraph 4.4.3 states that the decision maker: "…*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 and climate change benefits) in the same timescale as the proposed development".*

3.2.26 The Applicant did not consider delivering a smaller scheme with less generation capacity on a smaller area, as a smaller scheme would not deliver the same capacity or energy security and climate change benefit as the Proposed

Development nor meet the opportunities presented by the secured connection agreement.

3.2.27 The search for land initially started in proximity to Ossington, approximately 10km to the south west of the point of connection. Land towards the west is on higher ground than the central areas of the search area, and gives more expansive, open and distant views across the agricultural landscape, however these areas to the west are otherwise less constrained from an environmental perspective because there are large areas that are within Flood Zone 1 and located further away from the other DCO Applications located to the east (Cottam, West Burton and Gate Burton). Based on these factors, initially, it was the aim to find a large enough parcel of land with a small number of willing landowners on the west of the River Trent, outside of Flood Zone 2 and 3, largley within Grade 3 and Grade 4 ALC. However, no willing landowners towards the west were identified. For this reason, and a number of other environmental considerations including landscape and visual effects, parcels of ancient woodland and BMV as set out in detail in Table 4.1, these areas were discounted. As discussed below, some land outside of Flood Zones 2 and 3 was discounted for these reasons.

3.2.28 The Applicant then moved to the east of the River Trent to continue discussions with landowners, and found a group of willing landowners with large areas of land (approximately 1,200 acres combined), close to the point of connection which would be suitable in terms of meeting the site selection criteria, and available. These discussions then led to adjoining landowners and landowners on the west of the River Trent in close proximity to High Marnham substation being identified.

3.2.29 In terms of Brownfield land available within the10km area of search, the relevant Brownfield registers have been reviewed, and the following sites have been identified:

LPA	Site	Status
West Lindsey District Council	40 Lincoln Road, Fenton	Not available, permission granted for development in 2015 Ref: 131784 which has been implemented.
Bassetlaw District Council	Tuxford Memorial Hall Ashvale Road Tuxford	Available but not suitable for large scale solar as the Site is 0.4ha in size and located within a village

Newark and Sherwood District Council	South Scarle, Red May Industrial Estate, Church Lane	Not available, permission granted for development in 2017 Ref: 17/01846/FUL which has been implemented.

3.2.30 There is a parcel of brownfield land adjoining the substation site, which was considered initially, however at the time the landowner was not willing to join the project as they had their own development proposals for the land, with associated Town and Country Planning applications and so the land was not available for development. Subsequently, the engagement with the landowners progressed, however ultimately it was not possible to reach an agreement with the landowners to enable the land to be included in the Order Limits for development other than cable routes. In any event, from the Applicant's own initial reviews it was considered that the land was not suitable due to the likely extent of contamination and the identification of potential Open Mosaic Habitat on Previously Developed Land which is a Habitat of Principal Importance. As such, due to environmental considerations and landowner discussions, the site was discounted, and it has not been possible to include this site within the Order Limits for solar PV arrays, although cables are required to cross it to connect to the High Marnham substation.

3.2.31 In summary, there are no suitable and available brownfield sites within the 10km area of search that could be prioritised for the Proposed Development.

3.2.32 The specific site selection principles that informed the proposed Order once the point of connection at the Proposed High Marnham Substation had been selected is set out below in detail.

3.3 Specific Site Selection Principles

Proximity of site to dwellings

3.3.1 EN-3 advises in section 2.10 that large-scale utility solar farms may have a significant zone of visual influence with the likely impacts to sensitive receptors being that of residential amenity and glint and glare.

3.3.2 The area surrounding the High Marnham substation is characterised by dispersed small villages and individual dwellings/farmsteads, with the larger towns of Newark-on-Trent to the south, Retford and Gainsborough to the north and the City of Lincoln to the east. The Applicant considered that on the land in proximity to the Proposed High Marnham substation the residential properties were sufficiently sparse, with additional land to provide offsets to residential receptors through a combination of bespoke setbacks, natural screening, as well as existing and

proposed landscape improvements, compared to alternative sites in all directions which encroach onto larger settlements and towns.

3.3.3 Throughout the site selection process and design evolution, the Applicant has not applied a 'minimum/maximum' offset methodology as it is important to assess each individual or cluster of properties on an individual basis. This has been applied throughout the process and the offsets confirmed on the final **Works Plans [EN010159/APP/2.3] and Outline Design Parameter [EN010159/APP/5.9]** are all based on an individual assessment of the property and key views assessed during site visits within the specific context and locations of each dwelling.

Agricultural Land Classification and Land Type

3.3.4 EN-3 places emphasis on large scale solar utilising either previously developed land, brownfield land, contaminated land, industrial land or lower grade (3b, 4, or 5) land and, where possible, avoiding BMV agricultural land. Importantly, however, it goes on to state that "*land type would not be a predominating factor in determining the suitability of the site location"*. It continues to acknowledge that solar development is not prohibited on BMV land, land recognised for its natural beauty or ecological or archaeological importance and that it is recognised that, at scale, developments may use some agricultural land. However, applicants should explain site selection noting a preference for development on brownfield and non-agricultural land.

3.3.5 According to the provisional ALC mapping (DeFRA and Natural England), this area (i.e. in proximity to the point of connection) of Nottinghamshire and to a lesser extent, Lincolnshire, has a mixture of largely Grade 3 with small pockets of Grade 2 and Grade 4, making complete avoidance of BMV impossible for development of the scale proposed (as shown in Figure 1 below). The Natural England predictive mapping also shows large areas of the Order Limits as having a low-to-moderate likelihood probability of BMV (as shown in Figure 2 below), with one swathe of high likelihood between North and South Clifton which was removed during design development, so only a small amount remained.

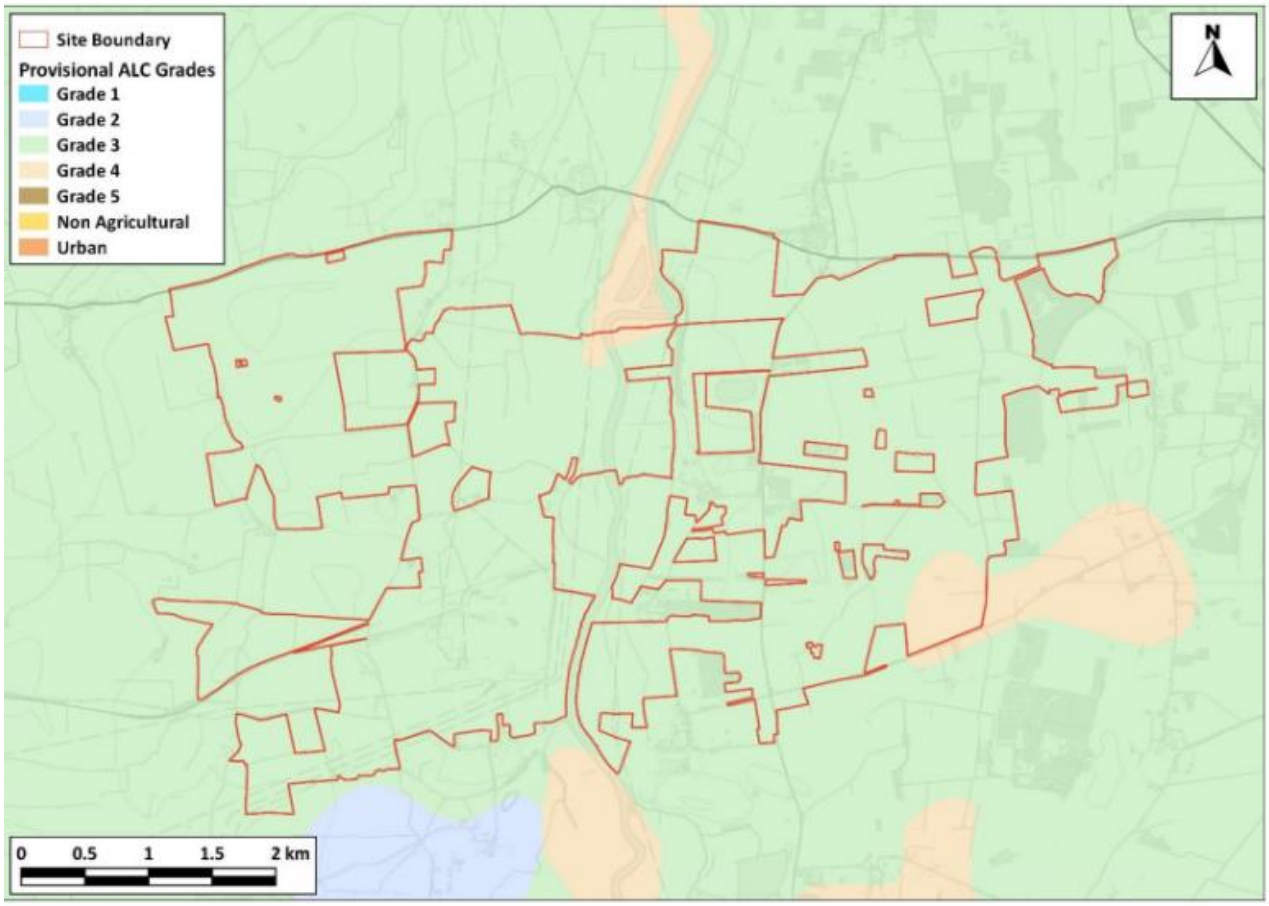

Figure 1: Reproduced East Midlands Region Provisional Agricultural Land Classification Map

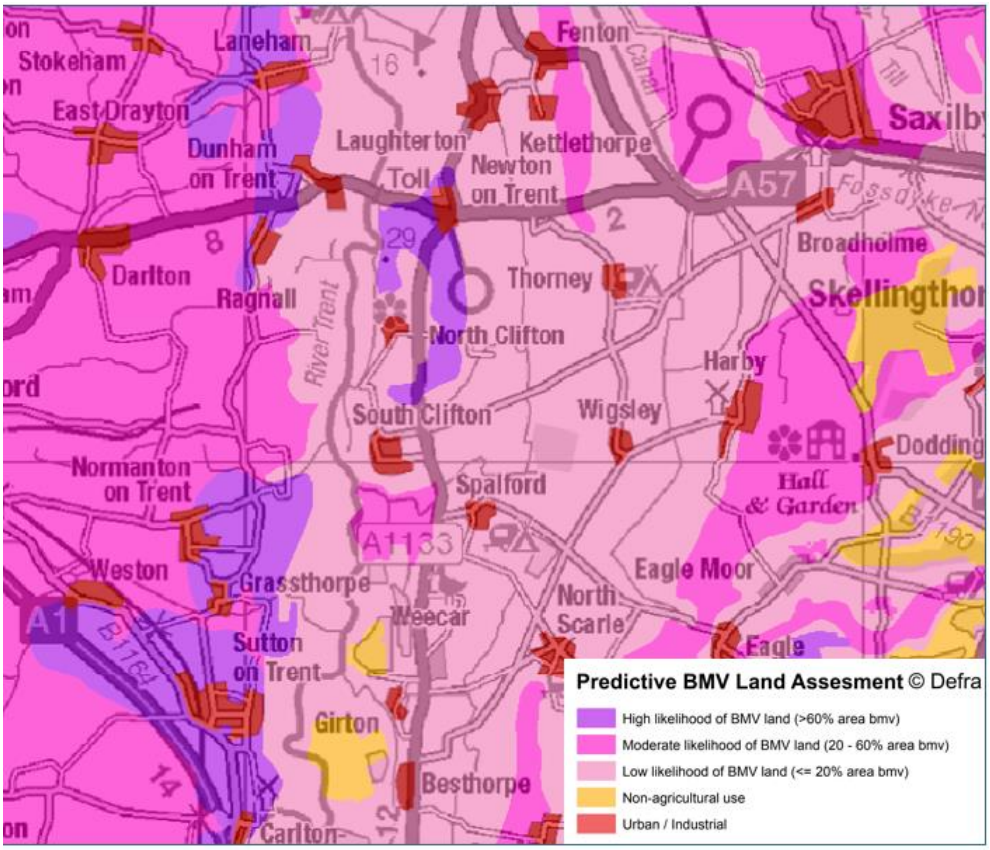

Figure 2: Likelihood of BMV Agricultural Land - Strategic scale map East Midlands Region (Natural England) (ALC017)

3.3.6 The Applicant has taken into account agricultural land quality when identifying the Order Limits, based on publicly available information and the extent to which this played a part in site selection decision making is explained further below. This approach to considering ALC values, in terms of the use of provisional and predictive mapping, has been considered as both satisfactory and proportionate by the Examining Authorities in relation to, for example, the Gate Burton Energy Park DCO and Mallard Pass Solar Farm DCO. As noted in EN-3 paragraph 2.10.29, that land type should not be a predominating factor in determining the suitability of the site location, but applicants should where possible avoid the use of BMV agricultural land. It is however recognised that at this scale, it is likely that applicants' developments will use some agricultural land.

3.3.7 With complete avoidance of BMV land not possible in the search areas from the grid connection in a way that achieves the objectives of the Proposed Development, a key focus in site selection was on minimising impacts on BMV as much as possible. The key driver for the site selection in terms of ALC was to avoid the Grade 2 land to the south and further west as shown in Figure 1 above and focus on the large areas of Grade 3 and pockets of Grade 4 land within close proximity to the High Marnham Substation. Based on this, a detailed ALC survey was then carried out to understand the specific quality of the land in the area being considered, to seek to reduce impacts on BMV agricultural land. The results of these surveys are set out in the **ES Volume 2, Chapter 8: Land and Soils [EN010159/APP/6.8].**

3.3.8 Consideration was given as to whether alternative land could be found with less impacts on agricultural land in proximity to the High Marnham Substation. However, from the published information and professional judgement of the technical soils specialists the same type of grading is found throughout much of Lincolnshire and Nottinghamshire and so sites further from the point of connection would be likely to have very similar soil characteristics.

3.3.9 In the context of the location of the Proposed Development and the surrounding land type characteristics, the provisional Defra mapping, as displayed in Figure 1 above, shows Grade 3 land is in general abundance in areas adjacent to the Order Limits, however there is an area of Grade 4 land to the south of the Order Limits which was assessed, but due to this area being closer to a number of Sites of Special Scientific Interest (SSSI), historic landfill sites and larger areas of residential dwellings, it was considered unsuitable.

3.3.10 The Site was considered favourable because it was identified as predominantly Grade 3 with small areas of Grade 4 on the provisional Defra mapping, offering the potential for Grade 3b land subject to further survey.

3.3.11 While EN-3 does not prohibit the use of BMV and recognises that Nationally Significant scale solar is likely to include some agricultural land, the preference is that poorer quality land is prioritised. The Applicant has sought to identify available land of lower grade close to the point of connection which meets the project objectives; however, as the provisional mapping demonstrates, there is an

abundance of Grade 3 and some Grade 2 land in relative proximity to the Proposed Development and that in order to deliver the proposed capacity, not only is it likely that a significant percentage of BMV land would be required, but that the Site represents a better than characteristic snapshot of the predominating land mix, and certainly significantly less BMV than the county wide mix of ALC grades. EN-3 states at paragraph 2.10.29, applicants should avoid the use of BMV "where possible", and that is what the Applicant has achieved in its site selection process. The Applicant's approach has been consistent with EN-3 on the basis that a large majority of land near the point of connection is BMV land, with impacts on BMV land minimised as far as practicable while still achieving the objectives of the Proposed Development.

Accessibility

3.3.12 EN-3 advises that "*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"*.

3.3.13 Accessibility to land was one of the Applicant's original search criteria. Sites were required to have a strong link to the strategic road network which to enable delivery of a project without the need for significant new highway infrastructure and subsequent potential environmental impacts. The Proposed Development can be accessed from the A57 which runs along the northern boundary of the Site, from the A57, internal temporary access roads will be constructed to serve the construction, operation and decommissioning of the Proposed Development. Areas which cannot be accessed by the existing road network have also been discounted.

Environmental Constraints

3.3.14 The Applicant also had regard to several important environmental considerations when determining the location of the Proposed Development.

3.3.15 A key principle in the site search was to seek to avoid areas of particular environmental and landscape sensitivity in order to avoid or minimise potential adverse impacts, as part of the application of the mitigation hierarchy. This is both from a natural and built environment perspective, including matters such as flooding, ecology and biodiversity, landscape and cultural heritage. On a site the size of the Proposed Development, it is, however, not possible to avoid all designations and/or assets. The approach taken was therefore effectively on a sliding scale, in the first instance seeking to avoid designations of highest sensitivity, such as SPA and SACs, as well as those at National scale (including National Landscapes, SSSIs, Grade I Listed Buildings) and Regional/Local.

3.3.16 Table 4.1 below sets out the key constraints that were considered, in addition to the matters already discussed within this report such as ALC and proximity to human receptors (such as dwellings).

Table 4.1 | Environmental Constraints and Considerations

Consideration	Discussion
Sites of Special Scientific Interest (SSSI)	The following SSSIs are located within the study area Besthorpe Warren SSSI is located approximately 3.5 miles south-east of the centre point of the study area and is designated for the mosaic of dry acid grassland and dune grassland; Besthorpe Meadows SSSI is located approximately 3.8 miles south of the centre point of the study area, and is designated for the wet grassland and associated wetland habitats that are present; and, Spalford Warren SSSI is approximately 2.4 miles south-east the centre point of the study area, the which is designated for the presence of grass heath. The land to the south of the Point of Connection was therefore discounted due to sensitivities associated with the SSSI designations.
Landscapes	There were no Areas of Outstanding Natural Beauty or National Parks found within the area of search. No local landscape designations have been identified within the districts of Bassetlaw, Newark and Sherwood or West Lindsey which coincide with the search area. It is noted that the landscape to the west is more sensitive in terms of openness and as such not as well suited to solar development as the selected Order Limits. Whilst this Proposed Development is still in a countryside location, it is recognised that schemes of this type and scale will often need to be located in a rural location, provided that the planning and environmental effects are acceptable.
Ancient Woodland	There are a number of areas of Ancient Woodlands identified within the search area. These are all located over three miles from the Point of Connection. Areas of Ancient Woodland have been discounted from the search area.
Scheduled Ancient Monuments (SAM)	There are a number of scheduled monuments within the area of search. When talking to landowners, consideration was given as to whether a suitably large site could be identified for solar, having regard to the location of SAM. SAM sites were ruled out of being able to deliver solar, but were not discounted as potential opportunities for mitigation and enhancement, depending on their individual characteristics. Whimpton Moor medieval village and moated site (NHLE 1017567) is partially located within the Order Limits because it is part of a larger field that the landowner did not want separation, as they would have been left with a small

	parcel of a larger field that was covered by a SAM and could not therefore be farmed or used for any other viable use.
Listed Buildings	A number of listed buildings are identified within the search area. A total of 107 listed buildings were identified, comprising of 7 Grade I listings, 7 Grade II* and the remaining 93 listed at Grade II. Figure 10.1 of the ES Volume 2, Chapter 10: Cultural Heritage [EN010159/APP/6.10] shows the locations of the listed buildings identified within the search area, which are generally clustered within the surrounding villages and settlements. The listed building and their settings have been discounted.
Flooding	It was identified that towards the east, land beyond the Order Limits is largely located within Flood Zone 3, with some small isolated parcels of Flood Zone 1 and 2 around the settlements of Wigsley and North Scarle. Similarly to the south, most of the land is located in Flood Zone 3, with a small pocket of land in Flood Zone 1 and 2 around the settlement of Carlton-on-Trent. To the north, beyond the parcel of land within Flood Zone 1 that is within the Order Limits, there is very little land sitting outside of the flood zones, with small pockets surrounding the settlements of Laugherton and Kettlethorpe. The pockets of Flood Zone 1 identified are of such a size that they could not accommodate an NSIP scale solar development alone or in combination, and additional land is required to utilise the connection. The land further east, north east and south east beyond Flood Zones 1 and 2 are proposed for other NSIP-scale solar farms which were at various stages of the DCO process during the site selection process (Cottam, West Burton and Gate Burton all now consented and Fosse Green which is still at the pre-submission stage). The Applicant sought to consider the potential for cumulative impacts with these schemes, which ruled out the inclusion of land parcels further east. It is noted that there are larger areas to the west of the point of connection within a 10km radius, up to Egmanton in the south west, Tuxford and East Markham in the west and East Drayton in the north west, that are located outside of the flood zones, in Flood Zone 1. These areas were discounted at the site selection stage because they were not suitable taking into account wider sustainable development objectives, as set out in paragraphs 5.8.9 and 10 of EN-1, for the development of large scale solar, for the following reasons: – as the landowners were not willing to put their land forward for the Proposed Development and the Applicant's aim is to secure the land parcels by voluntary agreement where possible;

	– large areas to the west of the existing High Marnham Substation are at higher ground where the land rises steeply to form a ridge, in proximity to the settlements of Tuxford and East Markham and therefore would have greater effects on the landscape and visual impacts and as such is less suitable for large scale solar development; – towards the south west around Egmanton, there are areas of Ancient Woodland that would discount large parcels within these areas due to the protected nature of the woodland; – during the site selection process the Applicant sought to avoid ALC Grade 2 (based on Defra mapping) areas further west and south. In addition, the Natural England Likelihood of BMV Agricultural Land map showed that all of the land to the west beyond the Order Limits was predicted to have a moderate to high likelihood of BMV, with the greater likelihood as you move further west beyond East Markham, and so a greater impact on BMV was anticipated further west; – further west the settlement pattern becomes more clustered and denser (around the larger settlements of Tuxford and East Markham for example) and was considered less suitable than the land closer to the point of connection because the landscape, visual and amenity impacts would be greater. For the reasons above, it was not possible to locate the development outside of the areas of flood risk, so it was therefore considered preferable to develop the land closest to the existing connection. On that basis, the Sequential Test was applied to both minimise the use of higher risk Flood Zones as far as practicable, while prioritising the use of lower risk Flood Zones. Approximately half of the Order Limits is located in Flood Zone 1 and the remainder is located within Flood Zone 2 and Flood Zone 3. The extent of land that fell within Flood Zone 3b, taking into consideration climate change projections, was refined and removed from the developable area as design of the Proposed Development evolved. The BESS and substations will sit outside Flood Zone 2 and 3 and there will be no electrical infrastructure, including solar panels, within Flood Zone 3b.

3.3.17 It was therefore considered that the Order Limits presented an appropriate location in terms of the lack of brownfield alternatives, opportunities to minimise impacts on environmental constraints, with flood risk being the key constraint identified at site selection stage. Further design development of the site selection process in terms of identifying the current Order Limits is set out in the **Design Approach Document [EN10159/APP/5.8].**

4. Summary of Findings

4.1.1 Section 2 of this report provides the policy framework and the Applicant's general approach to site selection and, where relevant, details relating to compliance with policy. Section 3 has reported on the detail of the site selection process itself based on its project objectives. It has responded directly to the key policy requirements and tests. It demonstrates that the Applicant has followed a logical and robust process in determining the location for the Proposed Development from the selection of an appropriate region within the UK to focus an initial search on to the reasoning for seeking consent on land which is subject to this Application.

4.1.2 In consideration of the merits of the Applicant's approach it is important to reiterate the context of the relevant NPS policy. Paragraph 4.3.9 of EN-1 states that it is not for the SoS to establish whether the proposed project represents the best option from a policy perspective. Further at 4.2.24, EN-1 states that the SoS 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.

4.1.3 The Applicant considers it has demonstrated that its site selection process is robust, and that the location of the proposed development is suitable from a policy perspective. The Site was selected because it presents the physical characteristics which are highly supportive in terms of the ability to deliver a NSIP scale solar development.

4.1.4 The Site:

- has a grid connection offer which will see energy transported to the national transmission network by 2030
- lies within an area of suitable irradiance and favourable topography
- includes a proportion of BMV land which is characteristic of the predominating mix in the general locality, and was predicted to be lower based on the mapping provided at the time of the site selection process
- has sufficient land to enable the grid connection offer to be maximised while maintaining sufficient offsets to sensitive residential receptors
- is located away from key environmental related designations
- is accessible from the road network namely the A57 which provides direct access into the Site and has suitable access to land not immediately adjacent the strategic road network

4.1.5 Whilst approximately half of the land within the Order Limits falls within Flood Zones 2 and 3, areas at lower risk of flooding performed less well in terms of other key planning and environmental considerations, including proximity to people's homes and ecological and landscape constraints. The Applicant has also

demonstrated in the **Planning Statement [EN01059/APP/5.5]** that the Sequential Test and Exceptions Test have been met.

4.1.6 The Applicant therefore considers that it has demonstrated compliance with the relevant site selection criteria set out in EN-1 and EN-3.

One Earth Solar Farm

Planning History - Appendix 2

February 2025

Reference	Project Description	Date	Decision
96/P/0755	Planning application to erect 22.5-metre-high telecommunications mast, 6 sector antenna, 4 X 600MM dishes, equipment cabin and fenced compound.	10/03/1997	Prior Approval required
97/P/1058	Planning application to erect additional antenna and cabin	25/02/1998	Approved
98/P/0370	Country matters planning application to drill up to five (5) exploratory boreholes for oils using the existing site and access track.	26/05/1998	No observation/objections
98/P/1049	Planning application to erect two grain storage bins	03/02/1999	Approved
M00/P/1027	Telecommunications application to install 6NO. sector antennae, 4NO. X 0.6M dish antennae, 1 x 2M equipment cabin and 1 meter cabinet	19/12/2000	Telecommunications Approval
30/01/00002	Installation of Telecommunication Module and Standby Generator and Relignment of Fence	02/02/2001	Approved
M01/P/0277	Planning application to continue use site without complying with condition 2 of planning permission – application numbers 98/P/0755 and 97/P/1058. (To cease use on 31 March 2002)	29/05/2001	Approved
M01/P/0515	Country matters planning application to drill up to five exploratory boreholes for oils using the existing site and access track. (Without complying with condition 4 of planning permission W68/0370/98 – Use to be discontinued, all plant and machinery	29/06/2001	Observations/objections

	removed from the site and land reinstated to its former condition, on or before 30 June 2001)		
M04/P/0991	Planning application to extend existing tower by 3M, install 3X antennae and an associated cabin, gantry, meter cabinet and fence extension	29/09/2004	Approved
M06/P/0095	Telecommunications application to install telecommuncations equipment (3no. flat panel antennas @ 17.5m high, 1no. 0.9m dish antennas @ 25.0m high, 1no. equipment kiosk, 1no. meter cabinet and 1no. feeder gantry)	29/03/2006	Telecommunications Approval
127165	County Matters application to retain and continue production of crude oil from an existing well and to seek planning permission to drill four additional boreholes-wells for the exploration, appraisal and production of crude oil.	07/06/2011	Approved
128201	Application for hedgerow removal notice - hedgerows to be removed to facilitate the installation of pipework associated with the proposed Lincoln Water Treatment Works at Newton-on-Trent	27/02/2012	Approved
127585	Planning application for construction of water treatment works, pumping station and open reservoir. Condition Applications: 128677 (3, 8, 9, 10), 128726 (7), 128800 (2), 131179 (7)	18/04/2012	Approved

128628	Application for hedgerow removal notice - hedgerows to be removed to facilitate access to and construction of proposed water treatment works and raw water reservoir	22/05/2012	Approved
131180	Non-material amendment to planning application 127585 granted 18th April 2012, refinement details to the design and layout.	23/05/2012	Approved
128126	Application for hedgerow removal notice - hedgerows to be removed to facilitate the installation of pipework associated with the proposed Lincoln Water Treatment Works at Newton-on-Trent	12/01/2012	Withdrawn
12/01415/FUL	Erection of single wind turbine	19/05/2013	Approved
131869	Application for non-material amendment to planning permission 127585 granted 18 April 2012-to erect single storey office	07/10/2014	Approved
133610	Non material amendment to planning application 127585 granted 18th April 2012 to instal solar panels on the roof.	02/11/2015	Approved
136616	Planning application to erect additional treatment building and emergency shower	26/09/2017	Approved
142142	Notification under the Electronic Communications Code Regulations 2003for the installation of 3no. antennas and equipment enclosure.	07/01/2021	Planning Permission Required
22/00057/ELE	Remove sections of overhead line and install a new terminal pole and stay wire	12/01/2022	Approved

22/01073/FUL	Proposed Gatehouse, Weighbridges, Widened Access Road and Vehicle Parking Area	14/09/2022	Withdrawn
145776	Notification under the Electronic Communications Code Regulations of the intention to install electronic communications apparatus, including replacement of 3 antennas at 21.1m, removal of 3no. MHAs, install 3no. MHAs & active routers, GPS node at 4m, removal of SAMI cabinet, install E-6115 & ERS racking - COM-0020933	09/11/2022	No observation/objections
22/01689/FUL	A Gatehouse, Weighbridges, Widened Access Road and Vehicle Parking Area	16/03/2023	Approved
22/01071/FUL	The Erection of Unit A - A Finished Product Despatch Warehouse Building (B8 Use) and Packaging Plant (B2 Use) Including Odour Abatement Plant and Solar PV and Unit B - Raw Animal By-Product (ABP) Intermediate Storage Building (B8 Use) Incorporating Mechanical Processing Plant for Crushing, Freezing and Reloading (B2 Use) Including Odour Abatement Plant and Solar PV on Land Comprising Part of the Former High Marnham Power Station at High Marnham	26/05/2023	Approved
23/00313/FUL	The Erection of a 1.8m High Palisade Fence with Vehicular Gate and 2 no. Bollards (Retain)	01/06/2023	Approved

23/00734/COND	Discharge of Condition (Part) 5(c) of P.A. 19/00818/FUL - Erect Storage Building (Class B8) with Associated Weigh Bridge	24/06/2023	Approved
23/00886/CONR	Removal of Condition 1 on 23/00313/FUL - The Erection of a 1.8m High Palisade Fence with Vehicular Gate and 2 no. Bollards (Retain)	08/09/2023	Withdrawn
23/01716/FUL	Construction of Agricultural Building (Part retrospective)	13/10/2023	Approved
23/00801/FUL	Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works.	26/10/2023	Approved
23/01330/COND	Discharge of Condition 1 on P/A 23/00313/FUL - The Erection of a 1.8m High Palisade Fence with Vehicular Gate and 2 no. Bollards (Retain)	06/12/2024	Approved
23/01370/COND	Discharge of Conditions 4, 5, 14 and 15 on P/A 23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant	12/01/2024	Approved
23/01135/FUL	Full Planning Application for the Construction and Operation of A Prototype Facility for the Production of Hydrogen from Ammonia, and Associated HGV	08/02/2024	Approved

	Loading and Unloading Areas, Staff Welfare Building, Boundary Fencing, Internal Access Roads, External Lighting and Works (EIA Development)		
24/00049/COND	Discharge of Conditions 16, 18 and 20 on P/A 23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works.	09/02/2024	Approved
24/00033/FUL	Construction and Operation of Additional Plant for Electrolytic Green Hydrogen Production and Associated Works	19/04/2024	Approved
24/00324/COND	Discharge of Conditions 8 and 19 of P.A. 23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works	07/05/2024	Approved
24/00660/COND	Discharge Condition 11 on 23/00801/FUL- Proposed Construction and Operation of	02/08/2024	Approved

	An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works.		
24/00445/COND	Discharge Condition 22 on P.A 23/00801/FUL - Proposed Construction and Operation of An 8 MW Electrolytic Green Hydrogen Production Plant, with Associated Infrastructure Including HGV and Multi Cylinder Pack (MCP) Loading Areas, Vehicle Maintenance Unit, Staff Welfare Facilities and Control Room, 11KV Customer Sub-Station, Boundary Fencing, Internal Access Roads, Landscaping, External Lighting and Works.	04/09/2024	Approved

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