



Dean Moor Solar Farm

Planning Statement on behalf of FVS Dean Moor Limited

July 2025

Prepared by: Stantec UK Ltd

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Firma Energy

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DEAN MOOR SOLAR FARM
PLANNING STATEMENT
PLANNING INSPECTORATE REFERENCE EN010155
PREPARED ON BEHALF OF FVS DEAN MOOR LIMITED

**The Infrastructure Planning (Applications: Prescribed Forms
and Procedure) Regulations 2009, Regulation 5(2)(q)**

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Executive Summary

- E.1. FVS Dean Moor Limited is applying for a Development Consent Order under the Planning Act 2008 (PA 2008) for Dean Moor Solar Farm.
- E.2. The Proposed Development comprises the construction, operation, and decommissioning of a solar photovoltaic energy generating station. The Proposed Development would export electricity via an on-site connection to the local grid. The primary purpose of the Proposed Development is to generate clean renewable energy to contribute to the urgent need to decarbonise the UK's energy supply.
- E.3. Due to its generating capacity exceeding 50MW, the Proposed Development is classed as a Nationally Significant Infrastructure Project under Section 14(1)(a) and 15(2) of the PA 2008. The DCO application will be determined by the Secretary of State for Energy Security and Net Zero. The Planning Statement provides an assessment of the Proposed Development against the relevant policy and legislative framework and references relevant chapters of the Environmental Statement and other assessments which form the evidence base in support of the application.
- E.4. The application will be determined in accordance with Section 104(2) of the PA 2008 where a relevant National Policy Statement (NPS) has effect in relation to the development. The principle NPSs which have been considered and provide guidance for the Proposed Development comprise the overarching NPS for Energy (EN-1), the NPS for renewable energy infrastructure (EN-3). NPS for Electricity Networks (EN-5) is also considered, but only with regards to those requirements relating to the substation. Sections 2 and 3 of this Planning Statement summarise the Proposed Development's location, nature, and its construction operation, and decommissioning phases, while Section 4 sets out the detailed legislative context, including the relationship between the PA 2008, NPSs, local policy and the Proposed Development.
- E.5. Section 5 reviews the decision-making framework and establishes the in-principle acceptability of and need for the Proposed Development as a renewable energy generating station.
- E.6. Section 6 provides a Planning Appraisal, considering how the effects described within the Environmental Statement, and the mitigation which is proposed to avoid or minimise those effects will ensure the Proposed Development is compliant with policy. This Planning Statement demonstrates a compelling case for the Proposed Development, which is in accordance with relevant national and local policy, and how the Proposed Development and the benefits it will bring respond to that need.
- E.7. In accordance with the provisions of the NPSs, it is concluded that the limited residual effects of the Proposed Development do not outweigh the substantial benefits, and do not represent an unacceptable risk that would negate the presumption in favour of consent for this Critical National Priority (CNP) infrastructure. The Proposed Development would deliver greater benefits than adverse effects and would contribute to addressing the urgent national need for renewable energy to reduce the carbon emissions associated with power generation. There is a clear and compelling case for the application to be granted.

1 Introduction

1.1 Context

- 1.1.1 This Planning Statement (PS) has been produced for FVS Dean Moor Limited (the 'Applicant') to support the Development Consent Order (DCO) application for the Dean Moor Solar Farm (the 'Proposed Development').
- 1.1.2 The DCO application is submitted to the Planning Inspectorate who will provide a recommendation to the Secretary of State for Energy Security and Net Zero (the 'SoS'). The SoS will make a decision on whether to grant consent for the Proposed Development pursuant to the Planning Act 2008 (the 'PA 2008')¹. The PA 2008 prescribes that the SoS is responsible for determining an application for development consent, with the power to appoint an Examining Authority (ExA) of appointed person(s) to manage and examine the application. The ExA will make the procedural decisions and examine the application, making a recommendation to the SoS, who will then decide whether to grant a DCO.

1.2 Purpose of the Planning Statement

- 1.2.1 The purpose of this PS is to provide an overview of the Proposed Development as it relates to planning policy. In doing so it draws together the assessments in the DCO application. It considers and assesses the Proposed Development against relevant legislation and planning policy and other matters that are likely to be important and relevant to the ExA's recommendation and the SoS's decision.
- 1.2.2 The application will be determined in accordance with Section 104 of the PA 2008 as a relevant National Policy Statement (NPS) has effect in relation to the Proposed Development. Section 0 of this PS sets out the detailed legislative context, including the relationship between the PA 2008¹, NPSs, local policy and the Proposed Development.

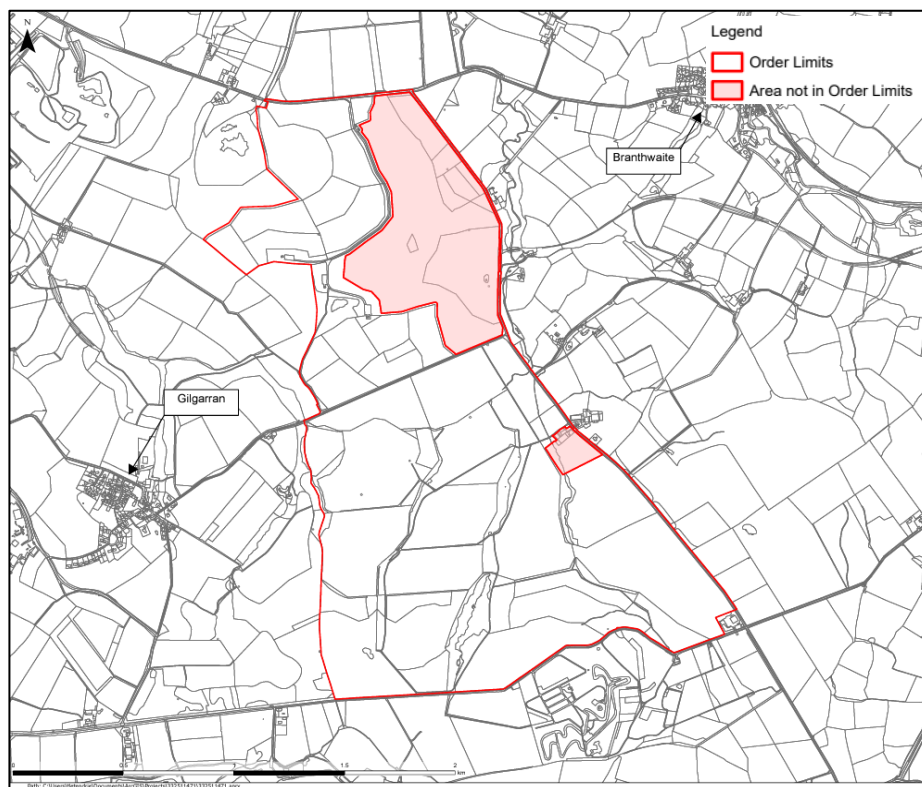
¹ 1 Planning Act 2008 c 29

- 1.2.3 This PS is part of a suite of documents that accompany the DCO application, including an ‘Environmental Statement’ (ES) [REF: 6.2] and the associated surveys and assessment work. The PS should be read alongside these documents and will, where appropriate, summarise them when drawing conclusions on policy compliance. Further detail on how the PS relates to other key application documents is provided in Section 1.6.

1.3 Overview of the Proposed Development

- 1.3.1 The Proposed Development comprises the construction, operation, and decommissioning of a solar photovoltaic (PV) energy generating station.
- 1.3.2 The Proposed Development would export electricity via an on-Site connection to the local Electricity Northwest Limited (‘ENW’) (as Distribution Network Operator (‘DNO’)) grid network. The Proposed Development will have a total capacity exceeding 50MW and is anticipated to have the potential to export up to 150MW at any one time based on the ENW connection agreement. The primary purpose of the Proposed Development is to generate clean renewable energy to contribute to the urgent need to decarbonise the UK’s energy supply.
- 1.3.3 The Proposed Development will be located on approximately 276.50ha of land between the villages of Gilgarran and Branthwaite in West Cumbria (the ‘Site’), which is situated within the administrative area of Cumberland Council (the ‘Council’).
- 1.3.4 The ‘Order Limits’ for the Proposed Development constitute the maximum area of land required for the construction, operation, and decommissioning of the Proposed Development. The Order Limits shown in Figure 1.1 refers to the same area as the ‘Site’, which is the preferred term for describing the spatial context of the Proposed Development.

Figure 1-1: Site Location Plan



1.4 The Applicant

1.4.1 FVS Dean Moor Limited is a joint-venture partnership between two renewable energy development specialists: Firma Energy and ib vogt ('IBV'). Firma Energy is an independent management owned business based in Leeds. The business has a focus on creating and delivering value from renewable energy developments with environmental and social benefits. IBV is a leading developer specialising in utility-scale solar PV infrastructure. Further information on the Applicant is provided within a separate Funding Statement **[REF: 4.2]** as part of the DCO application.

1.5 Consultation

1.5.1 Part 5 of the PA 2008 sets out the requirements for consultation and publicity before any application for a DCO is made, including a duty to consult the local community.

1.5.2 The Proposed Development has been informed by early and continual engagement, with extensive consultation undertaken throughout the pre-

application phase. This is described in the 'Consultation Report' [REF: 5.1], and includes details of the consultation undertaken, namely:

- Early engagement with the Council as the Local Planning Authority (LPA) regarding the approach to engagement, introducing the Proposed Development and regarding the scope of the EIA;
- EIA Scoping Opinion – was requested on 7 August 2023 from the Planning Inspectorate. The EIA Scoping Opinion (ES Ch.2, Appendix 2.2) [REF: 6.3] was received on 14 September 2023;
- A period of non-statutory consultation (3 October 2023 – 3 November 2023), including in-person meetings with interested parties and public consultation events;
- Ongoing engagement with the Council, prescribed bodies, and other stakeholders to inform the assessment and the design to be consulted on in the 'Statutory Consultation' (November 2023 – March 2024);
- Discussion and agreement of the Statement of Community Consultation (SoCC) with the Council (published March 2024);
- Statutory Consultation with the public and consultees, including publication and consultation on Preliminary Environmental Information Report (PEIR) (11 March 2024 – 26 April 2024); and
- Ongoing engagement with the Council, prescribed bodies, and other stakeholders to inform the design of the Proposed Development (April 2024 – March 2025).

1.5.3 The Applicant has held meetings with the Council (as LPA), as well as the Council's Historic Environment Advisor (as the Council's Archaeological Advisor), Lead Local Flood Authority (LLFA), Local Highways Authority (LHA), Minerals and Waste Officer (MWO), and Environmental Health Officer (EHO). The Applicant has also engaged with the Council ahead of submission of the application to seek their informal agreement on the 'Adequacy of Consultation Milestone' document (Consultation Report Appendix 4.9) [REF: 5.2].

1.5.4 In addition to meetings with the Council, the Applicant has met with the Lake District National Park (LDNP) Authority (LDNPA), the Environment Agency (EA), Natural England (NE), National Highways (NH), Cumbria Fire and Rescue Service (FRS), Historic England, and Cumbria Wildlife Trust (CWT). Where relevant this engagement will inform the preparation of statements of common ground.

1.5.5 The Applicant has also undertaken regular engagement with the Planning Inspectorate throughout the preparation of the DCO application.

1.6 Relationship of the Planning Statement to the DCO Application

- 1.6.1 The Proposed Development is an ‘*Environmental Impact Assessment* (EIA) *development*’ for the purposes of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017² (the ‘EIA Regulations’). This means that an EIA must be undertaken in respect of the Proposed Development. The Applicant has prepared an ES which accompanies the DCO application; this was preceded by a PEIR³. These are based upon the EIA Scoping Opinion (ES Ch.2, Appendix 2.2) adopted by the Planning Inspectorate on behalf of the SoS. The environmental matters which are considered relevant to the appraisal of policy are discussed in section 6 of this PS and in further detail in the ES.
- 1.6.2 The Application Acceptance Checklist **[REF 1.4]** and the Guide to the Application **[REF 1.3]** set out the structure of the DCO application and how it satisfies the relevant requirements of legislation and guidance concerning the preparation, assessment, and submission of DCO applications, including:
- The Infrastructure Planning Applications: Prescribed Forms and Procedure Regulations 2009⁴;
 - The Infrastructure Planning (Compulsory Acquisition) Regulations 2010⁵;
 - The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017²;
 - The Department for Communities and Local Government’s [DCLG] Planning Act 2008: Application form guidance (2013) ⁶; and
 - The Planning Inspectorate Advice Note: Advice on the Preparation and Submission of Application Documents (2024)⁷.
- 1.6.3 The Acceptance Application Index provides a full schedule of documents submitted with the DCO application.
- 1.6.4 In assessing the Proposed Development against relevant policy and legislation and demonstrating the overall planning case for the Proposed

² Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/572)

³ FVS Dean Moor Ltd (November 2023) Preliminary Environmental Information Report. Available at: <https://www.deanmoorsolarfarm.com/documents> Accessed February 2025

⁴ The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (SI 2009/2264)

⁵ The Infrastructure Planning (Compulsory Acquisition) Regulations 2010 (SI 2010/104)

⁶ DCLG. (2013) *Planning Act 2008: Application form guidance*. London, UK.

⁷ The Planning Inspectorate (2025) Advice on the Preparation and Submission of Application Documents.

Development this PS draws upon the conclusions of other application documents and should be read alongside the following documents:

- Draft Development Consent Order (dDCO) **[REF: 3.1]**;
- Consultation Report **[REF: 5.1]**;
- Policy Compliance Document (PCD) **[REF: 5.6]**;
- Design Approach Document (DAD) **[REF: 5.8]**;
- Design Parameters Document (DPD) **[REF: 5.7]**;
- Non-Technical Summary (NTS) **[REF: 6.4]**;
- Outline Construction Environmental Management Plan (OCEMP) **[REF 6.3]**;
- Outline Construction Traffic Management Plan (OCTMP) **[REF: 6.3]**;
- Outline Soil Management Plan (OSMP) **[REF: 6.3]**;
- Outline Landscape and Ecological Management Plan (OLEMP) **[REF: 6.3]**;
- Outline Operational Management Plan (OOMP) **[REF: 6.3]**;
- Flood Risk Assessment (FRA) and Outline Drainage Strategy (ODS) **[REF: 6.3]**;
- Archaeological Mitigation Strategy (AMS) **[REF: 6.3]**; and
- Framework Decommissioning Management Plan (FDMP) **[REF: 6.3]**.

1.6.5 A description of the purpose of each of these documents is included within the Guide to the Application. These documents are discussed where relevant in the following sections.

2 The Site and Surrounding Context

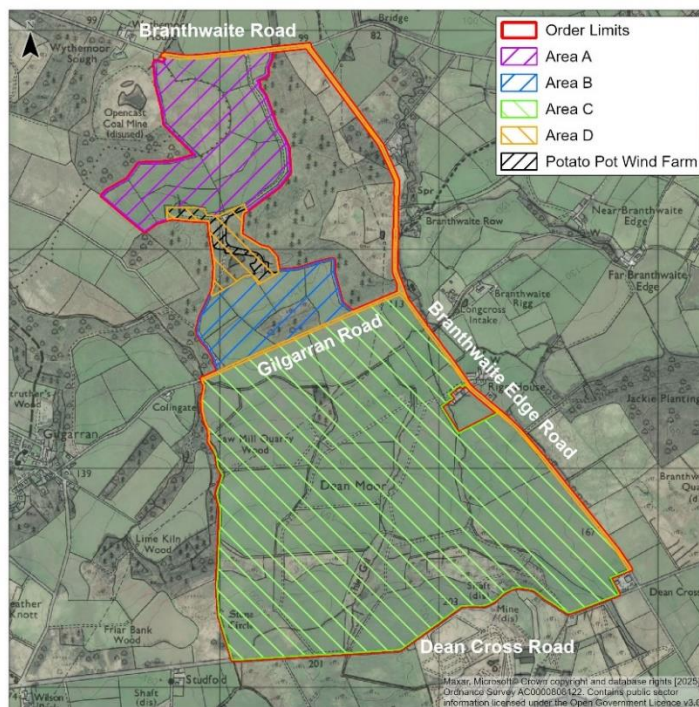
2.1 Introduction

2.1.1 This section provides an overview of the Site and surroundings, with a more detailed description provided in ES Chapter 3 – Site and Proposed Development Description. The Design Approach Document (DAD) also describes the constraints and opportunities present within the Site, and how these have influenced the design.

2.1.2 For ease of reference, the Site is divided into four areas referred to as Areas 'A', 'B', 'C', and 'D' as shown on Figure 2.1 below.

- **Area A** – Land south of Branthwaite Road (approximately 40.3ha);
- **Area B** – Land south of Branthwaite Road and north of Gilgarran Road (also known as locally as Collingate Road) (approximately 19.9ha);
- **Area C** – Land south of Gilgarran Road and north of Dean Cross Road (approximately 203ha); and
- **Area D** – Land connecting Areas A and B, including Potato Pot Wind Farm (the 'Wind Farm'), Gilgarran Road between Areas B and C, and Branthwaite Edge Road (approximately 13.4ha).

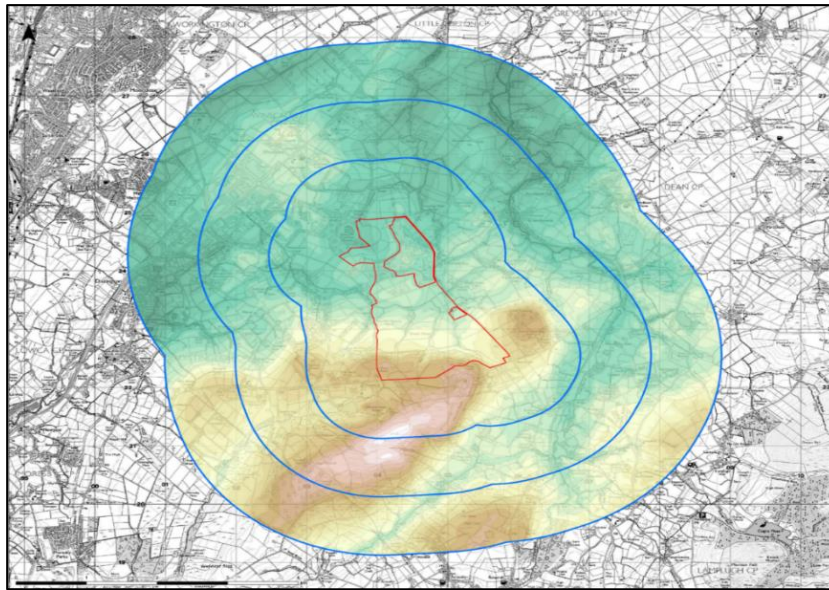
Figure 2-1: Solar Farm Area Plan



2.2 The Site and its Surroundings

- 2.2.1 The Site is located approximately 1.1km east of the Lillyhall Industrial Estate, 600m east of the small village of Gilgarran, approximately 900m west of Branthwaite, and approximately 5km southeast of Workington town centre on the west Cumbrian coast. The hamlet of Branthwaite Edge is directly adjacent to the east of the Site.
- 2.2.2 Most of the land within Areas A, B and C is in intensive pastoral (sheep grazing) use. Along with this are areas of plantation woodland in Area C, which also hosts overhead lines (OHL) and pylons. Area D includes the public highway and connective land between A and B which hosts the three wind turbines of the Potato Pot Wind Farm (the Wind Farm).
- 2.2.3 All areas of the Site feature established access tracks for agriculture or access to the Wind Farm. An Agricultural Land Classification (ALC) Report (ES Ch.2, Appendix 2.8) **[REF: 6.3]** has confirmed that all the agricultural land within the Site is poor quality land and there is no ‘*Best and Most Versatile*’ (BMV) agricultural land within the Site.
- 2.2.4 Land within the Site is typical of the surrounding area; comprising undulating predominantly pastoral land which at times curtails views from the wider area, providing a feeling of containment. Land within the Site tends to fall south to north, with a plateau of land along the Site’s southern boundary lying at approximately 200m Above Ordnance Datum (‘AOD’), falling relatively sharply initially by around 60m over a span of some 350m before taking on a more undulating form, falling to around 100m AOD at the northern boundary of Area A. More detail on topography is available from ES Chapter 7 – Landscape and Visual Impact **[REF: 6.1]**.
- 2.2.5 The Site is located approximately 3.2km west of the boundary of the LDNP / English Lake District World Heritage Site (WHS).

Figure 2-2: Topography of the Site and Surroundings



2.3 Relevant Planning History

2.3.1 The Site is currently largely agricultural. However, parts of the Site have been subject to development in its recent past. A review of historic Town and Country Planning Act applications which have overlapping boundaries with the Order Limits of the Proposed Development has been undertaken. Previous uses include:

Potato Pot Colliery

2.3.2 Site Areas A, B, and D were historically used for open cast coal mining known as the Potato Pot Colliery. Mining activities ceased in 1988, and the Site was subsequently restored to agricultural land. See application reference 2/1984/0749 for the following description of development: *‘Winning & working of coal by opencast methods & subsequent restoration & replacement of land between Lillyhall, Branthwaite Row & Gilgarran’* and reference S106/2/1984/0749 in relation to the restoration, along with 2/1987/0997 for *‘Winning of fireclay from the Potato Pot’*.

Potato Pot Wind Farm

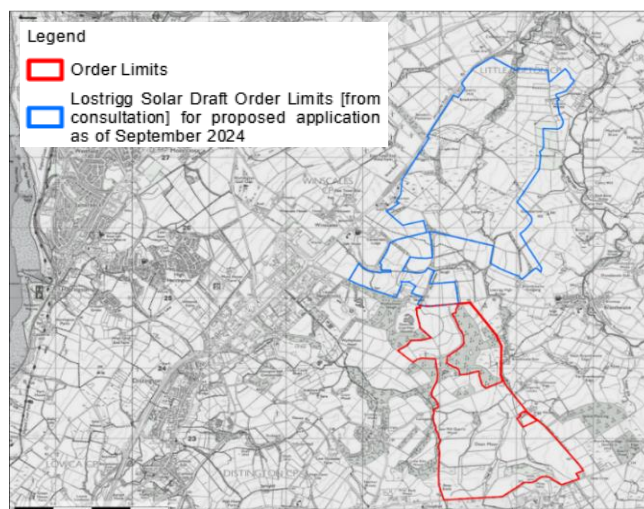
2.3.3 The Wind Farm was approved in 2013 on appeal (APP/G0908/A/13/2189934/NWF) against planning application 2/2012/0594. It is located in Area D (between A and B). The application was for *‘Erection of three wind turbines with a maximum blade tip height of*

up to 100 metres together with a substation and control building, upgraded access track, connecting internal tracks, associated hardstandings and infrastructure.' The wind energy generating station was commissioned in September 2016. Condition 2 of the consent requires that the Wind Farm be removed within 25 years of the first export date.

2.4 Relevant Proposals

- 2.4.1 The Site is adjacent to the draft order limits associated with the emerging 'Lostrigg Solar' DCO application [EN0110004]⁸. It is at the northwest of the Site, along Branthwaite Road as shown in Figure 2.3 below. The Lostrigg Solar scheme is at the pre-application stage (Scoping Opinion⁹ received in July 2024 and non-statutory consultation undertaken in autumn 2024.).
- 2.4.2 The ES describes the potential cumulative effects which would arise between the Proposed Development and Lostrigg Solar scheme. This PS summarises the outcome of the ES's assessment of cumulative effects, in particular with regards to those cumulative effects relating to Landscape and Visual (6.7) and Transport and Access (6.10).

Figure 2-2: Site Boundary of the Proposed Development and Lostrigg Solar



⁸ The Planning Inspectorate (2024). Lostrigg Solar Farm. 5

⁹ The Planning Inspectorate (2024) Scoping Opinion – Proposed Lostrigg Solar Available at: <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0110004/documents> Accessed March 2025

3 The Proposed Development

3.1 Introduction

3.1.1 Following construction, the Proposed Development would be operational for up to 40 years, after which it will be decommissioned, and the Site will be returned to its current use.

3.1.2 This section summarises the main components of the Proposed Development and outlines the construction, operation, and decommissioning phases. A full description of the Proposed Development is provided in ES Chapter 3

3.2 Components of the Proposed Development

3.2.1 The Proposed Development comprises the construction, operation, and decommissioning of a solar energy generating station comprising solar PV arrays, an on-site grid connection, associated infrastructure, and green infrastructure.

3.2.2 The works that form part of the Proposed Development are listed in Schedule 1 of the dDCO and visually represented on the Works Plans [REF: 2.3].

3.2.3 The principal components of the Proposed Development include:

- Solar PV panels;
- Solar PV array mounting structures;
- Power Conversion System ('PCS') in the form of inverters and transformers;
- Grid Connection Infrastructure comprising Customer and DNO Substation Buildings and external electrical equipment within a security fence;
- Perimeter fencing, gates, CCTV, electrical cabling, and other associated infrastructure;
- Access from the highway and internal access tracks; and
- Green Infrastructure including landscape planting and ecological enhancements.

3.3 Construction Phase

- 3.3.1 An assessment of environmental effects relating to the Proposed Development's construction phase, including working hours, traffic, and other activities can be found in ES Chapter 5 - Construction and Decommissioning Methodology and Phasing **[REF: 6.1]**. This describes the approach to mitigation including with regards to soil resources, the water environment, and measures to minimise noise and vibration.
- 3.3.2 The earliest construction of the Proposed Development could commence is 2026 and is expected to occur over a period of approximately 18 months, although the DCO enables the construction phase to be extended to accommodate environmental conditions.
- 3.3.3 The period of 18 months has been chosen (and assessed in the ES) because it is the shortest possible time that the Proposed Development could take to construct. Mitigation for issues such as waterlogging and could result in a longer period of construction. Should such issues arise and increase the length of the construction period, the intensity of the construction activities and associated effects would generally reduce, as they would be undertaken over a longer period.
- 3.3.4 The main phases of work during construction are expected to include:
- Site establishment and enabling works for construction, including the implementation of the accesses into the Site, perimeter fencing and environmental protection measures;
 - Implementation of temporary construction facilities, temporary security measures, and internal access tracks;
 - Deliveries and construction of the generating station including the installation of mounting framework, solar panels, and ancillary units;
 - Deliveries and construction of the Grid Connection Infrastructure
 - Cable trenching, ducting and backfilling to connect solar generating equipment to the grid connection equipment and from this to the existing 132kV overhead lines;
 - Testing and commissioning of the generating station equipment and Grid Connection Infrastructure; and
 - Snagging, restoration / landscaping, demobilisation of temporary works.

- 3.3.5 Up to five secure temporary construction compounds to be provided in the areas identified as Work No. 4 will be used to store materials and provide welfare facilities during construction.
- 3.3.6 A total of nine indicative Site access points have been identified, although it is not intended that all these points will be used during the construction phase. These access points have been identified to provide flexibility for construction and options which may be available when the Proposed Development is in operational use if they are not used for construction. The works associated with access points are defined by Work No. 5.
- 3.3.7 Detailed information about the construction phase is set out in ES Chapter 5 which signposts to the topic-specific technical chapters and appendices which describe the likely significant effects associated with construction and how these would be managed.
- 3.3.8 The OCEMP, OCTMP, and OSMP submitted with the DCO application set out controls to eliminate, reduce, or offset effects arising from the Proposed Development's construction phase. This phase will end following all relevant testing and commissioning required for the generating station to begin operating on a commercial basis. This is known as the Commercial Operation Date ('COD') after which the Proposed Development enters the operational phase (referred to as the 'date of final commissioning' in the dDCO).

3.4 Operational Phase

- 3.4.1 The operational phase will begin at the COD, and the Proposed Development will be operational for up to 40 years. This section sets out the nature of activities to be undertaken during the operational phase, including for the purposes of ongoing maintenance.
- 3.4.2 Activities to fully implement landscape and ecological measures initiated at the end of the construction, may continue into the operational phase depending on the timing of commissioning and of the first available planting season following the substantive completion of construction.

- 3.4.3 After the landscaping and ecological measures are implemented, typical activities on Site are expected to include maintenance activities, including servicing of generating station plant and equipment and vegetation management. It is expected that there will be an average of around two maintenance visits per week in transit van or 4x4 type vehicles. This includes visits to clean the solar PV panels, undertake visual monitoring, and to maintain green infrastructure and drainage measures.
- 3.4.4 Several outline control documents have been prepared to manage activities during the operational phase, including the OLEMP, OOMP, and ODS (within the FRA) which describe the nature of operational activities and the management and governance which will be in place for their implementation.
- 3.4.5 The operational phase would be followed by the decommissioning phase. Near the end of the operational phase the Applicant would begin to prepare the decommissioning document suite for approval by the Council. Further information about the operational phase is set out in ES Chapter 3.

3.5 Decommissioning Phase

- 3.5.1 No later than at the end of the 40-year operational lifespan, the generating station, including solar PV modules, mounting structures, cabling and ancillary buildings will be decommissioned and removed and the Site will be reinstated to its current use. These works will be undertaken in accordance with a Decommissioning Management Plan (DMP).
- 3.5.2 A FDMP is submitted with the DCO application and provides a framework for a future DMP. For the purposes of this application the term 'DMP' refers to the full suite of management plans required, which is likely to be equivalent to that which is provided by multiple plans for construction phase management. The FDMP establishes expectations and commitments for what the DMP will contain, including the minimum that should be required as an information baseline for its management plans.
- 3.5.3 The objective of the FDMP is to secure an approach to the future management of environmental effects and the outcomes to be achieved

through the DMP based on information available at the time of decommissioning. The framework aims to support flexibility regarding the methodology for decommissioning as environmental conditions, technical / engineering options, and best practice methodologies, will evolve over the 40-year operational lifespan of the Proposed Development. A DMP will be submitted to the Council no less than 6 months before the end of the 40-year operational phase. Further, information about the decommissioning phase is set out in ES Chapter 5

4 Legislation and Policy

4.1 Introduction

- 4.1.1 This section of the PS sets out the legislation and policy background to the Proposed Development. It begins with an overview of the policy context including national commitments, UK legislation, and local policies relating to climate change and renewable energy. This is followed by an overview of the relevant policies of the NPSs against which this application will be determined along with those of the National Planning Policy Framework (NPPF) ¹⁰, and local policies which are specific to planning, including the Council's Local Development Plan (LDP).
- 4.1.2 The Policy Compliance Document **[REF: 5.6]** sets out the relevant adopted and draft local planning policies in full.
- 4.1.3 The PA 2008 sets out the statutory process and thresholds for determining whether projects are considered a Nationally Significant Infrastructure Project (NSIP) and therefore require a DCO.
- 4.1.4 As defined by Section 14(1)(a), 15(1), and 15(2)(c) of the PA 2008, the Proposed Development is classified as an NSIP as it is a generating station that has a capacity of over 50MW.
- 4.1.5 Section 103 of the PA 2008 states that the SoS has the function of deciding whether to grant a DCO. Section 104 of the PA 2008 provides the framework for deciding a DCO application where a relevant NPS applies.
- 4.1.6 Section 104 states that if a relevant NPS applies, the SoS must have regard to:
- 'Any national policy statement which has effect in relation to development of the description to which the application relates...' (2)(a);
 - Any local impact report (LIR) (2)(b);
 - 'Any matters prescribed in relation to development of the description to which the application relates' (2)(c); and
 - Any other matters which the SoS thinks are important and relevant to the SoS decision (2)(d).

¹⁰ MHCLG (2024) *National Planning Policy Framework* (NPPF). MHCLG. London, UK.

4.1.7 The SoS must decide an application in accordance with any relevant NPS, unless:

- Deciding the application in accordance with any relevant NPS would lead to the UK being in breach of any of its international obligations;
- Deciding the application in accordance with any relevant NPS would lead to the SoS being in breach of any duty imposed on the SoS by or under enactment;
- Deciding the application in accordance with any relevant NPS would be unlawful by virtue of any enactment;
- The adverse impact of the proposed development would outweigh its benefits; or
- Any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

4.2 Legislation and Policy Context

4.2.1 The following national and international draft and adopted policies, legislation, and strategy provide important background to decision making for renewable energy generation development.

[Climate Change Act 2008¹¹](#)

4.2.2 The Climate Change Act 2008 (CCA 2008) set up a framework for the UK to achieve long term objectives of reducing Green House Gas (GHG) emissions and to ensure steps are taken to adapt to climate change. It committed the UK to cut GHG emissions (against the 1990 baseline) by 80% by 2050.

[UN FCCC The Paris Agreement \(2015\)¹²](#)

4.2.3 The central aim of the Paris Agreement is to strengthen the global response to climate change by keeping global temperature rise below 2°C, and to pursue efforts to limit the temperature rise to a more restrictive 1.5°C. Additionally, it aims to strengthen the ability of countries to deal with the impacts of climate change.

¹¹ HM Government (2008) *Climate Change Act 2008* c27

¹² UN Climate Change Conference (2015) *Paris Agreement 2015*

[Climate Change Act 2008 \(2050 Target Amendment\) Order 2019¹³](#)

- 4.2.4 Climate Change Act 2008 (2050 Target Amendment) Order 2019 established the statutory obligation to cut GHG emissions by 100% (against the 1990 baseline) and achieve net zero by 2050.

[Net Zero – The UK’s Contribution to stopping global warming \(2019\)¹⁴](#)

- 4.2.5 The Committee for Climate Change (CfCC), established under the CCA 2008, is responsible for setting interim binding targets over five-year periods. Chapter 6 of this report sets out actions to deliver net zero, including the transition to a net zero economy and what is needed to underpin net zero delivery. Near term actions include rapid electrification accompanied by greater build rates of low carbon generation capacity, along with measures to enhance the flexibility of the electricity system.

[Energy White Paper: Powering our Net Zero future \(2020\)¹⁵](#)

- 4.2.6 The Energy White Paper outlines the Government’s plan to support the UK in becoming a net zero GHG emitting country by 2050. It states that demand for energy is expected to double by 2050 due to the electrification of transport and heating. To achieve net zero, it advises ‘*a four-fold increase in clean electricity generation*’ would be required, and that, ‘*a low cost net zero consistent system is likely to be composed predominantly of wind and solar*’. Although not prescriptive on what a future UK energy mix should be, the Energy White Paper supports renewable energy developments and acknowledges they are required for the UK to achieve net zero by 2050.

¹³ HM Government (2019) Climate Change Act 2008 (2050 Target Amendment) Order 2019 (SI 2019/1056)

¹⁴ Feliciano, Diana. (2019). *Net Zero The UK’s contribution to stopping global warming*. Committee on Climate Change. 10.13140/RG.2.2.20433.17763.

¹⁵ BEIS (2020). *Energy White Paper: Powering our Net Zero Future*. ISBN 978-1-5286-2219-6. London: Crown Copyright.

[National Infrastructure Strategy – Fairer, Faster and Greener \(2020\)](#)

- 4.2.7 The National Infrastructure Strategy¹⁶ (NIS) aims to provide investors with clarity over the Government's plans so they can have confidence and help deliver the upgrades and projects needed across the country. The NIS sets out the Government's plans to deliver on its ambition, which is to, *'deliver an infrastructure revolution: a radical improvement in the quality of the UK's infrastructure to help level up the country... and put the UK on the path to net zero emissions by 2050.'* The current Government has announced it is intending to publish a new NIS in spring 2025.

[Net Zero: Opportunities for the Power Sector \(2020\)](#)¹⁷

- 4.2.8 The National Infrastructure Commission (NIC) published 'Net Zero: Opportunities for the Power Sector' to set out the infrastructure required to meet the 2050 net-zero target. To achieve this, it recommends an energy generation mix that comprises 90% renewables. Within the report it is recommended that 129 - 237 gigawatt (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.

[LDNP Partnership's Management Plan 2020-2025 \(2020\)](#)¹⁸

- 4.2.9 The Management Plan describes the LDNPA's vision for the National Park and WHS. The Plan recognises the need for action on climate change and support's Cumbria's 2037 net zero carbon ambition.

[Environment Act \(2021\)](#)¹⁹

- 4.2.10 The Environment Act (EA 2021) is a framework for environmental protection, seeking to improve the natural environment in England. It introduces legal requirements that new developments consented under the TCPA achieve a 10% net gain in biodiversity when developing a site.

¹⁶ HM Treasury. (2020). *National Infrastructure Strategy: Fairer, Faster, Greener*. HM Treasury. London, UK.

¹⁷ NIC. (2020). *Net Zero: Opportunities for the power sector*. National Infrastructure Commission. London, UK.

¹⁸ LDNPA. (2021) *Lake District National Park Partnership's Management Plan 2020-2026*. LDNP. Cumbria, UK

¹⁹ HM Government (2021) *Environment Act 2021 C.30*

*British Energy Security Strategy (2022)*²⁰

- 4.2.11 The BESS 2022 sets out how the UK intends to secure clean and affordable energy for the 'long-term'. Achieving this strategy requires 70GW of solar generation capacity by 2035. This is a significant increase from the 17.6GW of solar which had been developed as of February 2024²¹.

*Powering Up Britain: Energy Security Plan (2023)*²²

- 4.2.12 This describes steps the Government will take to ensure the UK is more energy independent, secure and resilient. The Plan's aim is to support the building out of a low-cost, low-carbon energy system which reduces reliance on fossil fuels. Which includes increasing the supply of low-carbon energy by enhancing wind, solar and nuclear power generation.

*Energy Act (2023)*²³

- 4.2.13 The Energy Act was passed in October 2023 and sets out new laws to help ensure energy is affordable for households and businesses and make the UK more energy independent in the long-term. The Energy Act establishes the need to accelerate the growth of low carbon technologies.

*Clean Power 2030 Action Plan (2024)*²⁴

- 4.2.14 The Clean Power 2030 Action Plan, published in December 2024, sets out how Government will work with the clean power sector to achieve its election manifesto goal of achieving "Clean Power by 2030". The Plan, amongst other things,:
- outlines the DESNZ's ambition for 45-47 GW of solar power by 2030;
 - is a key driver for reform the grid connections process and reduce the queue to connect for new renewable energy projects; and
 - emphasises the need to accelerate the pace and scale of renewable energy development to maintain a secure and affordable energy supply and protect the environment from the most damaging effects of climate change.

²⁰ HM Government. (2022) *British Energy Security Strategy*

²¹ Department for Energy Security and Net Zero. London, UK. (DESNZ). (January 2025) Solar photovoltaics deployment

²² DESNZ. (2023). *Powering Up Britain: Energy Security Plan*. DESNZ. London, UK.

²³ Energy Act (2023) c. 52

²⁴ DESNZ (2024) *Clean Power 2030 Action Plan*. DESNZ. London, UK.

*10 Year Infrastructure Strategy Working Paper (2025)*²⁵

- 4.2.15 The Government has published a working paper in lieu of a 10 Year Infrastructure Strategy. The Strategy will describe how the Government will address its mission of ‘...*growth, housing, clean energy and net zero...*’. Including the institutional framework to support this growth, which will include setting up the National Infrastructure and Service Transformation Authority to oversee the Strategy’s implementation.

*ABC Climate Change Action Plan 2022/23 (2022)*²⁶

- 4.2.16 The Plan sets out the Allerdale Borough Council (ABC) commitment to work towards net zero carbon from its estate and activities by 2030, and towards a net zero Cumbria by 2037.

*Cumberland Council Delivery Plan 2024-2025 (2024)*²⁷

- 4.2.17 This Plan sets out the ambition for the Council to be carbon neutral by 2037 in five strategic themes, which include:
- improving health and wellbeing
 - addressing inequalities
 - local economies that work for local people
 - environmental resilience and climate emergency

*Cumberland Council Climate and Nature Strategy 2024-2027 (2024)*²⁸

- 4.2.18 In July 2024, the Council adopted the Climate and Nature Strategy to set out objectives, commitments and programmes that the Council will deliver for climate and nature. The Strategy recognises the climate emergency and commits the Council to ‘*proactively engaging with making Cumbria carbon neutral by 2037 whilst embedding adaptation and creating a nature recovery network with an abundance of thriving plants and wildlife.*’

²⁵ HM Treasury (2025) *10 Year Infrastructure Strategy Working Paper*. HM Treasury. London, UK.

²⁶ Allerdale Borough Council (ABC). (2022). *Allerdale Borough Council Climate Change Action Plan*. ABC.

²⁷ Cumberland Council. (2024). *Cumberland Council Delivery Plan 2024-2025*.

²⁸ Cumberland Council. (2024) *Climate and Nature Strategy 2024-2027*.

*Planning and Infrastructure Bill (2025)*²⁹

- 4.2.19 In March 2025, the Planning and Infrastructure Bill was introduced into Parliament for its first reading. It sets out objectives for achieving a faster process for consenting critical energy infrastructure and support delivery of the government's Clean Power 2030 target.

4.3 National Planning Policy

- 4.3.1 Under Section 104 of the Act, the SoS is directed to determine a DCO application with regard to the relevant NPS, the LIR, matters prescribed in relation to the Proposed Development, and any other matters regarded by the SoS as important and relevant. Following their designation on 17 January 2024, there are three NPSs considered to be 'relevant NPS' under Section 104 of the Act:

- Overarching National Policy Statement for Energy (EN-1) (2024)³⁰ ;
- National Policy Statement for Renewable Energy EN-3 (2024)³¹;
- National Policy Statement for Electricity Networks Infrastructure EN-5 (2024).³²

- 4.3.2 Section 104 of the PA 2008 is considered to apply to the Proposed Development, as NPSs EN-1, EN-3 and EN-5 all contain provisions which apply to the Proposed Development. While EN-1 is applicable as the overarching energy policy statement, EN-3 includes a specific section on solar PV generation, and EN-5 is considered relevant to the design of the Proposed Development's connection to the electricity network.

4.4 Overarching NPS for Energy (EN-1)

- 4.4.1 The NPS for Energy (EN-1) outlines the overall national energy policy for the implementation of significant energy infrastructure projects. EN-1 paragraph 1.2.1 states that EN-1, combined with any technology specific energy NPS, provides the primary policy for decisions on nationally significant energy infrastructure.

²⁹ MHCLG (2025) *Planning and Infrastructure Bill*.

³⁰ DESNZ. (2023) *Overarching National Policy Statement for Energy (EN-1)*. DESNZ. London, UK.

³¹ DESNZ. (2023) *National Policy Statement for Renewable Energy Infrastructure (EN-3)*. DESNZ. London, UK

³² DESNZ (2023) *National Policy Statement for Electricity Networks (EN-5)*. DESNZ. London, UK.

- 4.4.2 Part 2 of EN-1 outlines the Government's policy framework for major energy infrastructure. This encompasses objectives that include meeting legally binding targets for reducing GHG, transitioning to a net zero carbon economy as set out in the Net Zero Strategy (October 2021)³³, decarbonising the power sector, ensuring energy security, reforming the electricity market, and meeting the goals of sustainable development.
- 4.4.3 Part 3 of EN-1 emphasises the importance of considering the need for energy developments when evaluating applications. EN-1 paragraph 3.1.1 states that the Government believes that achieving its energy objectives is dependent on the presence of significant amounts of large-scale energy infrastructure. However, it acknowledges in 3.1.2 that developing such infrastructure may result in significant residual adverse impacts. Nevertheless, it stresses the urgency of the need for such infrastructure such that considerations of need should be given significant weight by the SoS in their decision-making.
- 4.4.4 Part 4 of EN-1 provides guidance on the general policies for the submission and assessment of applications relating to energy infrastructure. It acknowledges the urgent need for renewable energy infrastructure and indicates a presumption in favour of granting consent unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused.
- 4.4.5 Paragraph 4.1.6 sets out *that 'the Secretary of State should take into account environmental, social and economic benefits and adverse impacts, at national, regional and local levels'*. Part 4 continues to set out the content required within an ES to inform the SoS of the aspects of the environment likely to be significantly affected by the project.
- 4.4.6 Paragraph 4.3.2 states that the EIA Regulations 'specifically refer to effects on population, human health, biodiversity, land, soil, water, air, climate, the landscape, material assets and cultural heritage, and the interaction between them'. The applicant must set out information on the

³³ BEIS. (2021) *Net Zero. Build Back Greener*; Department for Business Energy & Industrial Strategy: London, UK

likely significant effects of a development, and how any likely significant negative effects would be avoided, reduced, mitigated or compensated for, following the mitigation hierarchy.

- 4.4.7 EN-1 also provides new guidance on potential impacts to health and well-being in Section 4.4. This primarily relates to the release of pollutants and environmental impact (see section 6.11 of this PS). Section 4.6 relates to Environmental and Biodiversity Net Gain (BNG). This states that developments should consider opportunities for enhancements and seek to incorporate improvements in natural capital, ecosystem services, and the benefits they deliver when planning how to deliver BNG.
- 4.4.8 Paragraph 4.6.15 states that applications should be accompanied by a statement demonstrating how opportunities for delivering wider environmental net gains have been considered. BNG for NSIPs is not a legal requirement until relevant provisions of the EA 2021 are brought into force. However, policy expectation is that applicants will consider opportunities to provide BNG.
- 4.4.9 Section 4.7 underscores the importance of good design in energy projects and how factors such as functionality and siting significantly influence their effectiveness. It highlights the importance of energy projects harmonising with their surroundings and acknowledges that large-scale energy projects may have landscape and visual impacts.
- 4.4.10 Part 5 provides guidance to the SoS on assessing the general impacts of energy developments, stating that impacts and mitigation measures should be considered when they are relevant and significant to the decision-making process. These impacts cover areas such as air quality and emissions, GHG, biodiversity and geological conservation, aviation, coastal change, dust, pollution control, flood risk, historic environment, landscape and visual aspects, land use, noise and vibration, socio-economics, traffic and transport, waste, and water quality and resources. The environmental impacts discussed in these sections of EN-1 are examined when evaluating a development in accordance with the provisions of EN-1.

4.5 NPS for Renewable Energy Infrastructure (EN-3)

- 4.5.1 The NPS EN-3 (January 2024) provides national planning policy in respect of renewable energy infrastructure. EN-3 paragraph 1.1.2 summarises the central role that renewables play in meeting our energy objectives:

'Electricity generation from renewable sources 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. This could require a fourfold increase in low carbon electricity generation, with most of this likely to come from renewables'.

- 4.5.2 EN-3 provides assessment and technology-specific information on renewable energy technologies including solar photovoltaic generation to support the transition to net zero, discussed further in section 5.
- 4.5.3 EN-3 Section 2.10 explores the need for solar PV generation in greater detail and provides specific policies. These are considered in further detail in Section 5 of the PS.
- 4.5.4 Policies on site selection are detailed across paragraphs 2.10.18-48 . Paragraphs 2.10.28-34 provide policy on site selection with regards to agricultural land. These are considered further in Section 6.3 of the PS, and in the DAD
- 4.5.5 EN-3 paragraphs 2.10.35-39 and 2.10.40-45 relate to transport and access. They discuss the need for site access, the potential difficulty for accessing sites due to their rural location, and public rights of way (PRoW) . These are considered in further detail in Section 6.9 of the PS.
- 4.5.6 EN3 provides general policies on environmental impacts and mitigation in paragraphs 2.10.73-144. These policies expand on policies within EN1 and focus them for ground mounted solar PV development. These are considered in further detail under the environmental topics considered in Sections 6.4 – 6.12 of the PS.

4.6 NPS for Electricity Networks (NPS EN-5)

- 4.6.1 EN-5 sets out assessment principles specific to electricity network infrastructure, with a predominant focus on transmission infrastructure

such as overhead lines, including policies which relate to the siting and design of substations associated with this infrastructure. The principles for the development are set by EN-1 and EN-3. However, as required by EN-3 (2.10.21), *‘Applicants should consider important issues relating to network connection at Section 4.11 of EN-1 and in EN-5’*.

4.7 Material Considerations

National Planning Policy Framework (NPPF¹⁰)

- 4.7.1 As described in Section 104 of the PA 2008¹, the SoS *‘should have regard to matters which the SoS thinks are important and relevant’*. Those aspects of the NPPF which the Applicant considers important or relevant are set below.
- 4.7.2 The NPPF provides the planning policies of the UK Government for England. It serves as guidance for the development of LDPs and is a material consideration in determining planning applications under the TCPA 1990. NPPF policies are primarily formulated with the intention of addressing development projects that have local or regional significance.
- 4.7.3 NPPF paragraph 5 states that *‘The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision-making framework in the [PA 2008] and relevant [NPS] for major infrastructure, as well as any other matters that are relevant (which may include the [NPPF])’*. Here, the NPPF is acknowledged as an important and relevant factor where its policies are applicable to a proposed development, although it carries less weight for the SoS’s decision-making process compared to the relevant policies of the relevant of the NPSs.
- 4.7.4 A selection of NPPF policies which are most relevant to the Proposed Development include the following as set out in Table 4.1: NPPF Policies. The planning appraisal at Section 6 does not assess against NPPF policy directly, but provides additional linkages at the end of each topic-section therein for the benefit of any reader who is more familiar with the NPPF than the NPSs.

Table 4.1: NPPF Policies

Para	Policy
Achieving Sustainable Development	
10	<i>So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development</i>
11	<p><i>For decision-taking this means:</i></p> <ul style="list-style-type: none"> <i>c) approving development proposals that accord with an up-to-date development plan without delay; or</i> <i>d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date, granting permission unless:</i> <ul style="list-style-type: none"> <i>i. the application of policies in this Framework that protect areas or assets of particular importance provides a strong reason for refusing the development proposed; or</i> <i>ii. any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole, having particular regard to key policies for directing development to sustainable locations, making effective use of land, securing well-designed places and providing affordable homes, individually or in combination</i>
Making Effective Use of Land	
125	<p><i>Planning policies and decisions should:</i></p> <ul style="list-style-type: none"> <i>a) encourage multiple benefits from both urban and rural land, including through mixed use schemes and taking opportunities to achieve net environmental gains – such as developments that would enable new habitat creation or improve public access to the countryside; ...</i>
Meeting the challenge of climate change, flooding and coastal change	
161	<i>The planning system should support the transition to net zero by 2050 and take full account of all climate impacts including overheating, water scarcity, storm and flood risks and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.</i>
168	<p><i>When determining planning applications for all forms of renewable and low carbon energy developments and their associated infrastructure, local planning authorities should:</i></p> <ul style="list-style-type: none"> <i>a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future; ...</i>

National Planning Practice Guidance (PPG)

- 4.7.5 The PPG³⁴ is a web-based resource which brings together planning guidance on various topics. In June 2015, guidance was published on renewable and low carbon energy³⁵. The PPG summarises the reasons why planning for renewable and low carbon energy is important:

'Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environment impact is acceptable' (paragraph: 001 Reference ID: 5-001-20140306).

- 4.7.6 PPG paragraph 010 (reference ID: 5-010-20140306) states renewable energy developments *'should be acceptable for their proposed location'*. Along with factors applicable to acceptability for any form of renewable energy development, there are considerations for each technology, with PPG paragraph 012 (reference ID: 5-012-20140306) outlining the planning considerations that relate to active solar technology including:

- *'The importance of siting systems where they can collect the most energy from the sun;*
- *Need for sufficient area of solar modules to produce the required energy output from the system;*
- *The effect on a protected area such as [National Landscapes] or other designated areas;*
- *The colour and appearance of the modules, particularly if not a standard design.'*

- 4.7.7 PPG paragraph 013 (reference ID: 5-013-20150327) states that the visual impact of a well-planned and well-screened solar park can be properly addressed within the landscape if planned sensitively. Factors include:

- *'Encouraging the effective use of land by focussing large scale solar parks on previously developed and non-agricultural land, if it is not of high environmental value;*
- *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; and the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays;*

³⁴ MHCLG (2012) National Planning Practice Guidance. Available at <https://www.gov.uk/government/collections/planning-practice-guidance> Accessed February 2025

³⁵ MHCLG (2015) Renewable and low carbon energy. Available at: <https://www.gov.uk/guidance/renewable-and-low-carbon-energy> Accessed March 2025.

- *That solar parks are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;*
- *The proposal's visual impact, the effect on landscape of glint and glare and on neighbouring uses and aircraft safety;*
- *The extent to which there may be additional impacts if solar arrays follow the daily movement of the sun;*
- *The need for, and impact of, security measures such as lights and fencing;*
- *Great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance, including the impact of proposals on views important to their setting. As the significance of a heritage asset derives not only from its physical presence, but also from its setting, careful consideration should be given to the impact of large-scale solar parks on such assets. Depending on their scale, design and prominence, a large-scale solar park within the setting of a heritage asset may cause substantial harm to the significance of the asset;*
- *The potential to mitigate landscape and visual impacts through, for example, screening with native hedges; and*
- *The energy generating potential, which can vary for several reasons including, latitude and aspect.'*

4.7.8 Paragraph: 013 goes on to state;

'The approach to assessing cumulative landscape and visual impact of largescale solar parks is likely to be the same as assessing the impact of wind turbines. However, in the case of ground mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.'

Local Planning Policy

4.7.9 For TCPA decision-making Section 70 (2) of the Town and Country Planning Act and 38(6) of the Planning and Compulsory Purchase Act 2004 together require that planning decisions be made in accordance with the development plan unless material considerations indicate otherwise. This is reinforced by paragraph 12 of the NPPF and paragraph 48, which states that, *'Planning law requires that applications for planning permission be determined in accordance with the development plan, unless material considerations indicate otherwise.'*

4.7.10 While this application's status as an NSIP means that the core policy for the SoS are the relevant NPSs, local policy remains an important and relevant consideration. Paragraph 4.1.12 of EN-1 acknowledges that the policies outlined in development plan documents and other LDP

documents may hold significance and relevance in the decision-making process.

- 4.7.11 Section 104 and 105 of the PA 2008 both also refer to LIR as a document the SoS must have regard to in their decision-making process. The LIRs are informed by the relevant local planning policy. However, in cases where conflicts arise, this paragraph stipulates that the NPS takes precedence for the purpose of the SoS's decision-making.
- 4.7.12 4.1.13 of EN-1 acknowledges that the policies outlined in the LDP may hold significance and relevance in the decision-making process. However, in cases where conflicts arise, this paragraph stipulates that the NPS takes precedence for the purpose of the SoS's planning decision-making.
- 4.7.13 Local planning policy is likely to be of consideration in the SoS's decision. For the Proposed Development the most relevant LDP is that of the Council as the host authority, although LDNPA policies are also likely to be relevant for some aspects.
- 4.7.14 The sections to follow set out the most relevant LDP policies for the Proposed Development without providing extensive detail. The Policy Compliance Document [REF: 5.6] sets out and considers the accordance with the relevant local planning policies for Cumberland. In addition, this PS has considered other policies where appropriate within the key themes for analysis in section 6.

Cumberland Council Development Plan

- 4.7.15 In 2023 Cumberland Council was established as a new unitary authority comprising the former councils of ABC, Carlisle City Council (CCC) and Copeland Borough Council (CBC). The Site is located wholly within the area of the former ABC but is adjacent to the former CBC area. The Council's Local Development Scheme (LDS) March 2024 to March 2027³⁶ describes the current development plan for Cumberland. Based on the LDS, the relevant development plan documents include:

³⁶ Cumberland Council (2024) *Local Development Scheme (LDS) March 2024 to March 2027*.

- Allerdale Local Plan (Part 1) (2014) (LPP1);³⁷
- Allerdale Local Plan (Part 2) (2020) (LPP2);³⁸
- Cumbria Minerals and Waste Local Plan 2015 to 2030 (MWLP) (2017);³⁹
- Copeland Local Plan 2021-2038 (2024).⁴⁰

4.7.16 Cumberland Council's development plan documents are considered for the former ABC, followed by further material considerations arising from a review of the Copeland Local Plan.

4.7.17 EN-1 paragraphs 4.1.12-14 set out that the SoS may also consider draft documents as important and relevant to their decision-making. The weight given to these draft documents should be determined by the stage which the document has reached. The Council is progressing with a new Cumberland Local Plan but this is at an early stage and it is considered that the draft local plan currently carries little to no weight in relation to the Proposed Development.

Allerdale Borough Council Local Plan

4.7.18 The Allerdale LPP1 sets out the strategic and development management planning policies up to 2029, and LPP2 identifies or 'allocates' land to deliver the strategy and contains additional supporting policies to guide development.

4.7.19 Policy S2 – Sustainable Development Principles advises that the Council *'will encourage the development of renewable or low carbon energy resources in appropriate locations given the potential wider environmental, community and economic benefits.'*

4.7.20 Policy S19 - Renewable Energy and Low Carbon Technologies indicates: *'The Council will seek to promote and encourage the development of renewable and low carbon energy resources given the significant wider environmental, community and economic benefits. Proposals where impacts (either in isolation or cumulatively) are, or can be made acceptable will be permitted.'*

³⁷ Allerdale Borough Council (ABC) (2014). *Allerdale Local Plan (Part 1) Strategic and Development Management Policies*. ABC

³⁸ Allerdale Borough Council (ABC) (2020). *Allerdale Local Plan (Part 2) Site Allocations*. ABC

³⁹ Cumbria County Council (CCC). (2017). *Cumbria Minerals and Waste Local Plan 2015 to 2030*. CCC.

⁴⁰ Copeland Borough Council (CBC) (2024). *Copeland Local Plan 2021-2039*. CBC.

4.7.21 Policy S20 - Nationally Significant Infrastructure Projects relates specifically to how the Council will respond to and engage with NSIP applications. This expects:

- a) *robust programme of community consultation with the local community and stakeholders is achieved;*
- b) *That appropriate mitigation measures are considered to reduce the potential impact on the day-to-day activities of the local community and businesses as a result of the proposed development. This would include the impact on local infrastructure and services;*
- c) *That, where appropriate, the developer locates any temporary workers in the Principal or Key Service Centres close to services and public transport routes, reflecting the Local Plan Policies and Site Allocations;*
- d) *Sustainable forms of transport will be encouraged to move construction materials and workers during construction, operation and decommissioning;*
- e) *The maximisation of the local socio-economic opportunities for the West Cumbrian economy in terms of increased training and employment opportunities, improvements to local infrastructure and the development of local business opportunities.*

Other policies of note in the LPP1 include:

- S1 – Presumption in Favour of Sustainable Development
- S4 – Design Principles
- S14 – Rural Economy
- S22 – Transport Principles
- S24 – Green Infrastructure
- S27 – Heritage Assets
- S32 – Safeguarding Amenity
- S29 – Flood Risk and Surface Water Drainage
- S33 – Landscape
- S35 – Protecting and Enhancing Biodiversity and Geodiversity
- S36 – Air, Water, and Soil Quality
- DM5 – Farm Diversification
- DM10 – Improvements to the Public Realm
- DM14 – Standards of Good Design
- DM17 – Trees, Hedgerows and Woodland

4.7.22 The Proposed Development is not the subject of any allocations in the LPP2. It is not considered to have any policies relevant to the Proposed Development or the Site, with the closest employment allocations at Lillyhall approximately 1km to the west. The LPP2 is therefore not considered further in this PS.

- 4.7.23 Further development management policies of the ABC development plan policies are provided in the Policy Compliance Document and identified within the PS in the Planning Appraisal, Section 6, below.

[Cumbria Minerals and Waste Local Plan \(MWLP\)](#)

- 4.7.24 The Cumbria MWLP indicates that the Site is within a Minerals Safeguarding Area (MSA) for brick clay and a small section of the Site (along the eastern boundary, within the area of the Order Limits which overlap the Branthwaite Edge Road) also falls into a MSA for sand and gravel. The impact on mineral resources in relation to NPS and MWLP policy is discussed in further detail at section 6.10 below.

[Copeland Borough Council Local Plan](#)

- 4.7.25 A new Local Plan for Copeland (2021-2039) was adopted in November 2024. The western boundary of Areas C is parallel with the former CBC area. Gilgarran, one of the settlements closest to the Proposed Development is within the former CBC area, and so the policies of the CBC Local Plan which are most relevant are highlighted below.
- 4.7.26 Policy CC1 - Large Scale Energy Developments (excluding nuclear and wind energy developments confirms that CBC *'is committed to supporting the transition to a carbon neutral future and will seek to maximise the renewable and carbon neutral energy generated in the Plan area where this energy generation is compatible with other sustainability objectives.'*
- 4.7.27 CC1 goes on to set out that CBC will support large scale renewable energy developments that give careful consideration to design to avoid significant adverse impacts on matters such as landscape and visual, biodiversity, and amenity, although that such impacts would be balanced against the benefits of the scheme. It also requires applicants to take impacts on local communities into account.
- 4.7.28 The Plan identifies an area of ancient woodland which abuts Area C which is protected by Strategic Policy N14 Woodlands, Trees and Hedgerows which states:

‘New development should not result in the loss of or damage to ancient woodland or veteran or aged trees outside woodland unless there are wholly exceptional reasons and a compensation strategy exists. This could include Nationally Significant Infrastructure Projects’

4.7.29 Other policies of note in the CBC LDP include:

- N1 - Conserving and Enhancing Biodiversity and Geodiversity
- N3 - Biodiversity Net Gain
- N5 - Protection of Water Resources
- N6 - Landscape Protection
- N9 – Green InfrastructureBE1 – Heritage Assets
- CO4 – Sustainable Travel
- CO6 – Countryside Access

The Lake District National Park Local Plan⁴¹

4.7.30 The Site is located approximately 4km from the LDNP. While there is not an impact within the LDNP, there are some policies of relevance including:

- Policy 01: National and international significance of the Lake District
- Policy 05: Protecting the spectacular landscape
- Policy 06: Design and development
- Policy 07: Historic environment
- Policy 20: Renewable and low carbon energy

4.7.31 LDNPA policy protects the special qualities of the National Park and in relation to Policy 05 for renewable energy it indicates that the LDNPA want to support a Low Carbon Lake District and that: *‘When assessing proposals for decentralised or renewable energy schemes, we will take into account the cumulative impacts both within the Lake District and that which is visible beyond its boundary.’*

⁴¹ LDNPA. (2021). *Living Lakes: Your Local Plan. LDNP Local Plan 2020-2035.*

LDNP Management Plan

4.7.32 The LDNP Partnership's Management Plan 2020-2025 seeks to set out the key challenges which face the LDNP and how the various organisations will work together to address them. This includes commitments to:

- *'Protect and conserve the extraordinary beauty and harmony of the Lake District landscape and attributes of Outstanding Universal Value and Special Qualities:*
- *By using and promoting the Lake District Landscape Character Assessment... to inform land management and development management decisions to achieve a consistent, evidence-based approach.*
- *Recognise the importance of nuclear and low carbon energy industries in West Cumbria and other major economic investments in Cumbria. Where they do not prejudice the Lake District, its setting, Special Qualities, attributes of Outstanding Universal Value, or visitor economy we will assist with the development of proposals for associated infrastructure.'*

5 The Principle of Development

5.1 Introduction

- 5.1.1 This section of the PS establishes the need for the Proposed Development. It provides an appraisal against relevant planning policy within the NPSs.

5.2 The Proposed Development as Renewable Energy

- 5.2.1 The NPSs are strongly supportive of renewable energy as a means of meeting our increasing energy demands, tackling climate change, addressing supply security, and transitioning to a sustainable low carbon economy. Privately funded, large scale solar developments are recognised as being not just necessary, but central to meeting an urgent need.
- 5.2.2 There is not a requirement within national or local policy to demonstrate a need for renewable energy. NPPF paragraph 168a states that LPAs should *‘not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal’s contribution to a net zero future.’* The need and presumption in favour of granting consent for NSIP energy projects is further emphasised in EN-1; paragraphs 3.2.6-8 state 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, as described for each of them in this Part. In addition, the [SoS] has determined that substantial weight should be given to this need when considering applications for development consent under the PA 2008. The [SoS] is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS.’*
- 5.2.3 The urgency of the need for substantially greater quantities of renewable energy (including large scale solar) is evident in Government energy policy, driven by its declared Climate Emergency, to achieve a 100% reduction in GHG by 2050 (Net Zero). This is a legally binding target.
- 5.2.4 This Section focuses particularly on how the Proposed Development responds to the need described in the NPSs. It also draws on wider

national and local policy which relate to climate change and demonstrate the need for renewable energy development.

5.3 Net Zero

- 5.3.1 Section 2 of EN-1 outlines the UK's net zero targets and legislative context, including the 2019 commitment to reach net zero by 2050 and the Carbon Budget Order 2021⁴² which requires the UK to reduce GHG emissions by 78% by 2035 compared to 1990 levels.
- 5.3.2 Paragraph 2.3.6 sets out the need for renewables to meet the net zero target: *'We need to transform the energy system, tackling emissions while continuing to ensure secure and reliable supply, and affordable bills for households and businesses. This includes increasing our supply of clean energy from renewables...'*
- 5.3.3 EN-1 paragraph 3.3.57 states that based on the Net Zero Strategy and the commitment to GHG emissions reductions by 2035, all electricity needs to come from low carbon sources by 2035, while meeting a 40-60% increase in demand. Paragraph 3.3.58 therefore recognises that *'there is an urgent need for new (and particularly low carbon) electricity NSIPs to be brought forward as soon as possible'*. The Government has concluded that there is a critical national priority for the provision of nationally significant low carbon infrastructure, as set out in paragraph 3.3.62 and discussed in Section 5.7.
- 5.3.4 EN-3, section 2.10 outlines the need for solar photovoltaic generation. Paragraph 2.10.9 states that *'The government has committed to sustained growth in solar capacity to ensure that we are on a pathway that allows us to meet net zero emissions by 2050. As such, solar is a key part of the government's strategy for low-cost decarbonisation of the energy sector'*.

5.4 Energy Security

- 5.4.1 Building a new clean energy grid also means achieving energy independence and supply security. EN-1 Section 2.5 sets out the

⁴² HM Government (2021). The Carbon Budget Order 2021.

importance of domestic energy production in the context of rising global energy costs, to ensure a secure, reliable and affordable energy supply.

- 5.4.2 Paragraph 2.5.6 outlines the accelerated deployment of renewables as a key strategy for energy security. 2.10.10 of EN-3 further states that, ‘*Solar also has an important role in delivering the government’s goals for greater energy independence. The British Energy Security Strategy [BESS 2022] states that government expects a five-fold increase in combined ground and rooftop solar deployment by 2035 (up to 70GW)*’.
- 5.4.3 The Powering Up Britain: Energy Security Plan further emphasises the need for large scale ground-mount solar deployment across the UK, as set out in 2.10.11. The BESS 2022 emphasises the importance of addressing an underlying vulnerability to international energy prices by reducing dependence on imported fossil along with improving energy efficiency and establishing a more secure grid network. This will ensure a domestic supply of clean, affordable, and secure power as we transition to net zero. The BESS 2022 states that accelerating the transition away from oil and gas depends on how quickly large-scale renewables can be deployed.

5.5 Energy Affordability

- 5.5.1 The Proposed Development is a renewable energy generating station using a proven technology that is low cost and deliverable well in advance of the 2035 target date to support the rapid supply revolution required to achieve the 2035 and 2050 obligations.
- 5.5.2 The Proposed Development will contribute to energy supply security as a decentralised renewable energy generating station that delivers clean power to the ENW distribution network. The Proposed Development will support providing a more diverse supply of energy and help reduce dependency on imported fossil fuels. This, in turn, will reduce the UK’s vulnerability to variability in the international energy markets and will support the financial security of households and businesses.
- 5.5.3 Support for the Proposed Development is found across EN-1; paragraph 3.3.20 confirms that:

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

5.6 Sustainable Development

- 5.6.1 Every tier of policy, from the local development plan through to NPSs, is intended to deliver sustainable development. Further discussion of this topic is found at Section 6.12 of this PS. EN-1 Section 2.6 outlines how the NPS policies support the development of low carbon energy infrastructure which itself will contribute to sustainable development goals:

‘the government believes that the NPSs set out planning policies which both respect the principles of sustainable development and can facilitate, for the foreseeable future, the consenting of energy infrastructure on the scale and of the kind necessary to help us maintain safe, secure, affordable and low carbon supplies’.

5.7 Critical National Priority

- 5.7.1 Paragraph 3.3.63 of EN-1 underpins the urgency for the provision of nationally significant low carbon infrastructure as a ‘Critical National Priority’ (CNP):

‘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’.

- 5.7.2 Section 5.2 of the PS highlights that given the level and urgency of need for infrastructure, the SoS will start with a *‘presumption in favour of granting consent to applications for energy NSIPs’* which applies *‘unless any more specific and relevant policies set out in the relevant NPSs clearly indicate that consent should be refused’* (4.1.3). The Proposed Development is considered as CNP as outlined in Section 4.4 of the PS.
- 5.7.3 Paragraph 4.2.7 of EN-1 goes on to state that *‘CNP policy applies following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy’*. As such, it should be given consideration by the ExA when making a recommendation to the SoS, (and in the SoS decision making itself), specifically in reference to any residual impacts that have been identified.

5.8 Principle of Development and Need Case

- 5.8.1 The Proposed Development is a proven technology and a CNP that will help to deliver the government's objectives of a secure, reliable, affordable, net zero energy supply. The benefits in relation to climate change are discussed within Section 6.12 of this PS. As a type of infrastructure covered by the NPSs, there is a proven urgent need which should be given substantial weight. This urgent need has been supported by recent solar DCO decisions where the need has been ascribed a substantial positive weighting in the planning balance.

6 Planning Appraisal

6.1 Introduction

- 6.1.1 In applying the relevant national and local policy regarding the principle of the development as renewable energy, the Proposed Development is fully compliant, and the 'in principle' acceptability of the Proposed Development is considered to be established. This section provides a planning appraisal which goes beyond the principle of development into topic-specific considerations and provides a robust case for why and how the Proposed Development represents a form of sustainable development.
- 6.1.2 The Proposed Development has been informed by a series of technical assessments and consultation with the Council, prescribed consultees, the local community, and other stakeholders. To demonstrate how the Proposed Development responds to these environmental topics, this section of the PS sets out the key topics arising from this informative work and in doing so, demonstrates the compliance of the application with the relevant planning policy context.
- 6.1.3 This section appraises the Proposed Development against topics and themes described in local and national planning policy. This appraisal is informed by the assessment described within the ES and supporting technical reports. The themes which are considered are as follows:
- Site Selection;
 - Agricultural Land Use and Soils;
 - Cultural Heritage;
 - Landscape and Visual;
 - Ecology and Biodiversity;
 - The Water Environment and Flood Risk;
 - Transport and Access;
 - Ground Conditions;
 - Environmental Health and Amenity;
 - Sustainable Development.
- 6.1.4 In undertaking this exercise, this section first considers the general principles for the assessment, including outlining the policy framework that

the SoS will consider, and which have been applied when selecting relevant policies for consideration.

- 6.1.5 The section goes on to appraise the compliance of the Proposed Development with the relevant policy requirements outlined in Section 4. It provides an overview of the detailed analysis of individual policy compliance in the Policy Compliance Document and considers the Proposed Development against the consistent themes of national and local planning policy. In doing so, it draws an overall conclusion as to the compliance of the Proposed Development for each topic or theme.

6.2 General Principles of Assessment

Decision Making Policy Framework

- 6.2.1 In considering applications for energy NSIPs, in particular when weighing their adverse impacts against their benefits, 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 renewable energy as well as potential adverse impacts. The SoS should also consider any measures to avoid, reduce, mitigate, or compensate any adverse impacts. Within this context, paragraph 4.1.6 of EN-1 directs the SoS to take into account environmental, social and economic benefits and adverse impacts national, regionally and locally.
- 6.2.2 EN-1 paragraphs 4.1.12 to 4.1.14 acknowledge that the SoS may consider the development plan as important and relevant to their decision-making. The weight given to these should be determined by the stage which the plan has reached, if the plan has not yet been adopted. Paragraph 4.1.15 states that *'in the event of a conflict between these documents and an NPS, the NPS prevails for the purpose of [SoS] decision making given the national significance of the infrastructure'*.
- 6.2.3 This assessment is based on the findings presented in the relevant documents that have informed this PS. Considering the overview of the assessment above, it is determined that the Proposed Development complies with the general principles of assessment, as set out in EN-1.

- 6.2.4 Development specific policies within the NPPF and PPG have been referenced and considered where appropriate within the ES, particularly where it provides additional detail to that contained in the NPSs. However, the NPPF generally aligns with the NPSs regarding the guidance provided for solar farms, whereas the NPSs are more specific to NSIPs, so the consideration of the topics and themes within this section generally focusses on appraising compliance with the NPSs.

6.3 Site Selection

Policy and Decision-Making Context

- 6.3.1 Policy requirements relating to site selection and a consideration of alternatives are outlined in EN-1, Section 4.3. Paragraphs 4.3.9 and 4.3.15-16 indicate that there is not a requirement to consider alternatives or establish if a proposed site is the best option. Though there are specific circumstances in which legislative frameworks such as the Habitats Directive⁴³, or for flood risk, which require alternatives to be considered, and the ES must include information about reasonable alternatives.
- 6.3.2 Paragraphs 4.3.18-29 of EN-1 describe the decision-making criteria for the SoS regarding the consideration of alternatives.
- ‘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.’*
- 6.3.3 In addition, EN-1 Paragraph 4.3.24 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’*.
- 6.3.4 This demonstrates that the siting and location of a development should be weighed against the CNP for renewable energy infrastructure and places importance on the presence of appropriate mitigation measures, and that proposals should not be refused because fewer adverse impacts would

⁴³ Council Directive 92/43/EEC of 21 May 2002 on the Conservation of natural habitats and of wild fauna and flora

result from developing similar infrastructure on another suitable site. Alternatives not studied by the Applicant in the ES should only be considered if the SoS thinks they are important and relevant to the decision.

- 6.3.5 As proposals have to be assessed against the relevant NPS, the existence of an alternative proposal is unlikely to be important and relevant and ‘*vague and immature*’ alternatives should not be considered. Should a third party propose an alternative after an application has been made, the applicant is not expected to have considered this.
- 6.3.6 Discussion of site selection within this PS is proportionate to the scale and nature of the Proposed Development and aligns with the view of the Inspector in Planning Appeal APP/U2235/W/23/3321094 that, ‘*there is no requirement to carry out a sequential analysis of alternative sites as suggested by the Council*,’ which references the judgment in *Bramley Solar Farm Residents Group v SSLUHC & Ors* [2023]⁴⁴ which found that PPG does not mandate the consideration of alternatives in this context.
- 6.3.7 EN-3 paragraphs 2.10.19-48 detail factors that influence site selection and design by applicants, in summary these include:
- Irradiance and site topography;
 - Proximity of a site to dwellings;
 - Agriculture land classification and land type;
 - Accessibility;
 - Public rights of ways;
 - Security and lighting; and
 - Network connection.
- 6.3.8 Other parts of EN-3 also provide advice on technical considerations (paragraphs 2.10.49-72) and environmental considerations (paragraphs 2.10.73-126) that will be influential for the design and layout within a site which should also be considered as part of the site selection process.

⁴⁴ [2023] EWHC 2842 (Admin)

- 6.3.9 Paragraphs 2.10.127-144 outline mitigation measures which can be implemented to avoid or minimise environmental effects, and therefore the capacity of a site to incorporate such measures will also be considered as part of the site selection process.

Site Selection and the Proposed Development

- 6.3.10 The background to the Proposed Development's site selection as it relates to the ES is set out in ES Chapter 4 - Alternatives and Design Evolution **[REF: 6.1]**. This provides an account of the reasonable alternatives that have been considered in developing the siting and design of the Proposed Development in accordance with the EIA Regulations. It sets out the main reasons for the chosen Site, considering environmental, social, and economic effects, as well as technical and commercial feasibility
- 6.3.11 A complementary overview to this PS appraisal in relation to policy is provided by the DAD which sets out the Applicant's design approach, which includes the Applicant's initial vision, and the Project Design Principles (DPs) which have been embedded within the design process for the Proposed Development. As described in the DAD, the Applicant's DPs have informed the design from the initial stages of the process, including site selection. In doing so, the DPs align with the design principles established by the National Infrastructure Commission⁴⁵.
- 6.3.12 As part of the Applicant's site selection exercise a range of matters were considered against the criteria included in EN-3 and environmental and planning factors to identify a site that is technically feasible and that minimises potential environmental impacts. The site selection process involved the consideration of three main requirements:
- Grid connection capacity;
 - Land availability and productivity; and
 - Environmental suitability, including technical viability.

⁴⁵ National Infrastructure Commission. (2020) Climate, People, Places, Value: Design Principles for National Infrastructure.

Grid Connection Capacity and Availability

- 6.3.13 EN-3 highlights the process of finding a suitable point of connection (POC) to the grid network as a key determinant of whether a site may be viable for a solar scheme because without a viable POC there can be no solar farm. EN-3 paragraph 2.10.22 states that *'The capacity of the local grid network to accept the likely output from a proposed solar farm is critical to the technical and commercial feasibility of a development proposal.'*

Land Availability and Productivity

- 6.3.14 Land availability is a practical consideration; a site that could be a suitable location for a solar farm is unlikely to be considered for this use if the landowner has no interest in making the land available. There are also aspects that relates to the Applicant's DPs and planning policy. Factors that are considered are set out below, and align with EN-3 paragraphs 2.10.28-32, which is discussed in more detail at section 6.4 of this PS.
- Agricultural Land: for the UK to meet its Net Zero objectives it requires solar farms of too large a scale to rely on only rooftops and brownfield land. A key site search consideration is to avoid, where possible, BMV agricultural land.
 - Land Availability: site options are restrained by land availability. It is important to focus on estates that are large enough to incorporate renewables as part of a temporary diversification that will not compromise the overall viability of the primary agricultural enterprise.
 - Continued Agricultural Use: site selection will aim for opportunities to co-locate with existing agricultural operations.

Environmental and Technical Suitability

- 6.3.15 Environmental suitability includes the consideration of the potential environmental impacts and mitigation opportunities identified in EN-3 as well as the technical considerations for a viable solar farm. EN-3 paragraphs 2.10.49-126 largely reflect considerations that relevant local policy say should be taken into account when weighing the impacts of a renewable energy development against its benefits.
- 6.3.16 Environmental suitability can rule out or reinforce a site that is available and technically viable, while technical viability relates to the viability of a Site for solar generation, such as sufficient land in respect of which

constraints are minimised and appropriate topography to deliver the export capacity secured as part of the grid connection agreement.

Proposed Development Site Selection

- 6.3.17 As set out in ES Chapter 4 and the DAD, the first part of the Site that was identified was Area C in which the POC is located. This was considered a suitable location to host a solar farm in terms of key issues like size, access, flood risk and amenity risks. However, following an additional appraisal it was determined that more land would be required due to constraints within Area C. What followed was a landscape-led process to review additional land in proximity to Area C to ensure the site as-a-whole would be technically capable of hosting a generating station with export capacity to match the grid offer, and with sufficient land to allow for buffers from environmental constraints and to provide opportunities to deliver environmental benefits.
- 6.3.18 Following this exercise Areas A and B were added to the site taken forward to EIA Scoping (this included Area D which was subsequently named as such). Since then, the draft Order Limits have been further refined to ensure alignment with Land Registry boundaries of the LHA and to exclude land not required for the Proposed Development.

Site Selection Conclusions

- 6.3.19 As described in EN-3, there is strong policy support for renewable energy developments so long as their impacts are or can be made acceptable. The foundation for acceptability is a good site selection process. The site selection exercise which has been undertaken for the Proposed Development is more thoroughly outlined by ES Chapter 4 and the DAD.
- 6.3.20 The appraisal which follows includes a consideration of the environmental impacts which are assessed by the ES. To address these topics, the Proposed Development has been designed in accordance with the EN-1, 4.7.2 requirement to consider good design.
- 6.3.21 Overall, the Site has been established to be appropriate to accommodate an NSIP solar farm, based on its environmental and technical

characteristics, responsiveness to constraints (including mitigation opportunities) and benefitting from a secured POC allowing the Proposed Development to come forward as a CNP sustainable development that accords with the NPS and local policy for renewable energy developments including LPP1 policy S19, CBC policy CC1, and LDNPA policy 20.

6.4 Agricultural Land Use and Soils

Agricultural Land Use

- 6.4.1 EN1 paragraph 5.11.12 sets out an expectation that an applicant *‘should seek to minimise impacts on the best and most versatile agricultural land (defined as land in grades 1, 2 and 3a) (BMV) and preferably use land in areas of poorer quality (grades 3b, 4, and 5)’*.
- 6.4.2 The use of agricultural land as necessary to deliver a CNP renewable energy development is accepted by the NPS. EN1 paragraph 5.11.34 cautions that the SoS will expect justification for the use of BMV agricultural land and that, *‘Where development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality’*.
- 6.4.3 This is reinforced in EN-3 where paragraph 2.10.29 advises, *‘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. ...’*
- 6.4.4 Paragraph 2.10.30 goes on to state that *‘whilst development of ground mounted solar arrays is not prohibited on [BMV] agricultural land ... the impacts of such are expected to be considered’*. 2.10.31 recognises that *‘at this scale, it is likely that applicants’ developments will use some agricultural land. Applicants should explain their choice of site, noting the preference for development to be on suitable brownfield, industrial and low and medium grade agricultural land’*. 2.10.32 further states that *‘where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions’*.

- 6.4.5 The use of agricultural land is necessary for the Proposed Development which benefits from a POC within Area C. No non-agricultural land is available in any viable proximity to the POC to provide for a 150MW renewable energy generating station. There are no sites on ABC⁴⁶ or CBC⁴⁷ Brownfield Registers which are larger than 3ha.
- 6.4.6 More significantly, the Proposed Development does not involve the irreversible loss of any land available for agriculture. The generating station is temporary, with decommissioning and restoration to its current use secured through a DCO Requirement. This is unlike other forms of development for housing and employment which are permanent, and where the use of previously developed land (PDL) would be more sustainable than the use of PDL for a temporary solar farm.
- 6.4.7 The majority of the Site is in agricultural use and is intensively grazed by sheep. Areas A, B, and all of D that is not highways land, were restored to agricultural land from a mining use in the early 1990s. Area C, which has been less affected by mining, benefits from a post-1988 ALC survey which indicates that Area C is not BMV land. This was an influential factor when considering the suitability of the Site, as described in Section 6.3 above.
- 6.4.8 A subsequent ALC survey has been undertaken for Areas A and B which were not assessed as part of the prior Area C study. ALC outcomes are provided by the ALC Report (ES Ch.2, Appendix 2.8) which confirms the ALC grade of land within the Order Limits.
- 6.4.9 The ALC Report demonstrates that the Site is predominantly classed as Grade 4 agricultural land (64%), with 17.5% being subgrade 3b, and 12.6% being Grade 5. The remaining 5.9% of land within the Order Limits is not classified as agricultural land. As such, the Proposed Development does not impact on any BMV agricultural land.

⁴⁶ ABC. (2025) *Brownfield Register*. Available at: <https://www.allerdale.gov.uk/en/planning-building-control/planning-policy/brownfield-register/>. Accessed February 2025

⁴⁷ CBC. (2025) *Brownfield Register*. Available at: <https://www.copeland.gov.uk/attachments/copeland-brownfield-register>. Accessed February 2025

Soil Resource Conservation

- 6.4.10 Soil as a resource in-itself is reinforced by the NPS. Paragraph 5.11.13 of EN-1 advises an applicant to ‘identify any effects and seek to minimise impacts on soil health and protect and improve soil quality taking into account any mitigation measures proposed.’ Alongside this, at 5.11.14 is a recommendation that applicants ‘develop and implement a Soil Management Plan’ to help minimise adverse effects on soil health and to ensure sustainable soil handling that supports future site reinstatement.
- 6.4.11 This is mirrored by a more detailed policy in EN-3 which states at paragraph 2.10.34 that,
‘Applicants are encouraged to develop and implement a Soil Resources and Management Plan which could help to use and manage soils sustainably and minimise adverse impacts on soil health and potential land contamination. This should be in line with the ambition set out in the Environmental Improvement Plan to bring at least 40% of England’s agricultural soils into sustainable management by 2028 and increase this up to 60% by 2030’
- 6.4.12 The impacts on soils are assessed as part of ES Chapter 10 – Ground Conditions **[REF: 6.1]**, with the outcomes of the ALC Report providing the foundation for management arrangements to minimise effects on soils.
- 6.4.13 In accordance with the NPS, and responding to engagement with consultees, the ES includes a particular focus on the construction phase effects. An OSMP has been prepared to ensure the quality and quantity of the soil resource can be protected in construction. This includes addressing matters raised by consultees, as described in section 6.5 of the Consultation Report for how works are to be controlled in wet/boggy conditions to minimise the impact on soils, including avoiding loss of topsoil during construction.
- 6.4.14 The cessation of intensive grazing and the chemical-free management of the land under and around solar PV arrays as species rich grassland will be a benefit to soil health and future agricultural land quality, as described in the ALC Report. It is likely that soil health will be improved over the operational life of the generating station, i.e. increase in soil organic matter, increase in the diversity of soil flora, fauna and microbes, and improved soil structure. The implementation of the Soil Management Plan

(SMP) during construction will support suitable conditions for the planting and land management regime provided by the Landscape Ecology Management Plan (LEMP) during the operational phase, with soil health also benefiting from this period of rest.

Co-located Agricultural Use and Rural Diversification

- 6.4.15 While it is accepted that the use of agricultural land for renewable energy is necessary, the NPS encourage multi-functional land use. At 2.10.32 EN-3 advises that,

‘where sited on agricultural land, consideration may be given as to whether the proposal allows for continued agricultural use and/or can be co-located with other functions (for example, onshore wind generation, storage, hydrogen electrolyzers) to maximise the efficiency of land use’

- 6.4.16 Renewable energy is an important form of farm diversification (as encouraged in LPP1 Policy DM5). In 2019 it was estimated that agriculture was responsible for around a tenth of UK GHG emissions⁴⁸; supporting clean energy farm diversification projects is a vital step to reaching net zero. Research by NE recognises that achieving net zero depends on changing land use and management, and that around one-fifth of agricultural land will need to be released before 2050 for actions that reduce emissions and sequester carbon.⁴⁹

- 6.4.17 While the primary purpose of the Proposed Development is to generate renewable energy, it will also facilitate co-located agricultural use. During the operational phase the level of sheep grazing on Site would be restricted to enable the establishment of a species-rich grassland and other landscape measures, and to prevent grazing in the vicinity of watercourses for the benefit of water quality. However, grazing would be utilised as part of the landscape maintenance regime, so an agricultural use of the land would continue, but at a reduced intensity.

- 6.4.18 Further detail on this is provided by the Outline Grazing Management Plan (OGMP) which is incorporated into the OLEMP. The GMP will detail how co-located grazing and associated pastoral activities will occur on the Site

⁴⁸ Agriculture and Horticulture Development Board (2025) Greenhouse gas emissions: agriculture

⁴⁹ Natural England. 2021. Carbon Storage and Sequestration by Habitat 2021 (NERR094).

in order to maintain agricultural activity and economic contribution to the rural economy, managed in a way that is for the benefit of the Site's ecological interests.

Agricultural Land Use and Soils Conclusions

- 6.4.19 The use of agricultural land is necessary in this case as the location of the Proposed Development is driven first and foremost by its requirement to be close to a POC. There are no suitable locations for a 150MW solar farm in the vicinity of the POC that could be available without the use of agricultural land. However, the Proposed Development will not entail the permanent loss of any agricultural land and none of the land within the Site is BMV agricultural land. Co-located agricultural use will be maintained through a conservation grazing regime as part of the Site's vegetation management in the LEMP.
- 6.4.20 It is well established that solar farms of a sufficient scale to support a transition to Net Zero will require the temporary use of greenfield agricultural land. The use of agricultural land is necessary, and the Proposed Development would not undermine national agricultural interests in accordance with NPPF Paragraph 187b, or local agricultural and rural economy interests in accordance with LPP1 policy S14. Furthermore, NPS EN-3 confirms that although ground mounted solar projects should aim to utilise PDL, or non-BMV agricultural land, *'land type should not be a predominating factor in determining the suitability of the site location'* (2.10.29).

6.5 Cultural Heritage

- 6.5.1 Section 5.9 of NPS EN-1 focuses on the historic environment (heritage and archaeology), recognising that 'The construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment above, at and below the surface of the ground' (5.9.1).
- 6.5.2 EN-3 paragraphs 2.10.107-119 outline the impacts that solar projects may have on the historic environment and matters to consider for assessment

purposes. Paragraph 2.10.118 notes that aside from the potential for direct physical effects, ‘...*the significance of a heritage asset derives not only from its physical presence but also from its setting, careful consideration should be given to the impact of large-scale solar farms which depending on their scale, design and prominence, may cause substantial harm to the significance of the asset*’. This is also recognised at the local level where LPP1 Policy S19 – Renewable Energy and Low Carbon Technologies confirms the Council will take a positive view where developments ‘...*Do not have unacceptably adverse impact on heritage assets and their settings.*’

- 6.5.3 Reflecting the language in the NPPF at Paragraphs 214-215, in assessing impacts on heritage assets against the NPS, EN-1, 5.9.27 advises:
‘When considering the impact of a proposed development on the significance of a designated heritage asset, the Secretary of State should give great weight to the asset’s conservation. The more important the asset, the greater the weight should be. This is irrespective of whether any potential harm amounts to substantial harm, total loss, or less than substantial harm to its significance’,
- 6.5.4 This topic is covered in full by ES Chapter 6 - Cultural Heritage **[REF: 6.1]** which assesses the impact of the Proposed Development on above ground heritage receptors (buildings, structures, and landscapes of heritage value) and known or potential below ground heritage receptors (archaeological remains).
- 6.5.5 To inform the ES Chapter 6 assessment, a Historic Environment Desk-Based Assessment (‘HEDBA’) **[REF: 6.3]** was undertaken to provide a baseline of known/potential heritage receptors. This was supplemented by a geophysical survey which was carried out across Area C where the possibility of archaeological interest has not been sterilised by historic mining activities. This survey was undertaken as agreed with the Council, responding to requirements outlined in EN-3, 2.10.113.
- 6.5.6 Various other sources of information such as the local Historic Environment Record (‘HER’) have been consulted. The consultation with Westmorland and Furness Council’s Archaeological Advisor, acting as ‘the Council’s Archaeological Advisor’ has influenced this application’s agreed mitigation framework as set out in the Archaeology Mitigation Strategy

(AMS) [REF: 6.3]. The way in which heritage receptors have influenced the design from Site selection onwards is also discussed within the DAD at section 6.6.

6.5.7 As reported in ES Chapter 6 the sensitivity/value of heritage receptors has been determined by its designated status and desk-based research to inform a professional judgement. To assess setting, reference has been made to the assessment steps set out in Historic England's guidance document GPAP3 'The Setting of Heritage Assets'⁵⁰.

6.5.8 ES Chapter 6 [REF: 6.1] assesses the significance of effects on heritage assets in line with an EIA methodology. However, it also addresses the potential harm, responding to NPPF and EN-1. In terms of quantifying substantial harm, the terminology in NPPF and EN-1 policy has been considered. ES Chapter 6 indicates:

'Regarding the NPPF, an assessment of 'less than substantial harm' therefore does not always equate to a 'significant effect.' A receptor could therefore be subject to 'less than substantial harm' under the NPPF and fall within 'significant effect' by the EIA assessment matrix. For example, a receptor that falls within 'less than substantial harm' under the NPPF and is of medium or low sensitivity/value could fall within significant effects if the magnitude of impact is moderate or major. '

6.5.9 ES Chapter 6 concludes that the Proposed Development will not result in substantial harm to any assessed designated heritage assets.

Designated Heritage Receptors

6.5.10 A Scheduled Monument (SM), which is described as 'Large Irregular Stone Circle and a Round Cairn on Dean Moor' (the Stone Circle and Cairn) [NHLE: 1014588] is partly within the Site, on the western boundary of Area C. As per the Works Plans, infrastructure development is excluded from the elevated section of the Site in proximity to the SM. ES Chapter 6 concludes there are potential significant effects on this asset arising from the construction and operation phases. However, all phases would result in less than substantial harm.

⁵⁰ Historic England (2017) *Historic Environment Good Practice Advice in Planning Note 3* (Second Edition)

- 6.5.11 Another heritage asset in close proximity that has been influential for design is the Grade II listed Wythemoor Sough and Adjoining Barn and Stable ('Wythemoor Sough') [NHLE: 2327185] located approximately 160m to the north west of the Site. This listed building is in a prominent location, with views across part of the northernmost part of the Site (Area A). ES Chapter 6 sets out that its significance is primarily its architectural merit which will not be affected by the Proposed Development. Similarly, its setting is closely confined due to modern development in its curtilage. ES Chapter 6 concludes that *'the land which comprises the Site does not make a substantial contribution to the setting of this receptor.'*
- 6.5.12 Nevertheless, care has been taken to minimise the potential for effects on this asset, with development in Area A set back in the northwest corner and with an area dedicated to Work No. 6 – Green Infrastructure to provide intervening screening that is in-keeping with the local landscape character and will mitigate intervisibility with Wythemoor Sough and its setting. While the ES confirms that there is potential for significant effects, in relation to EN-1, 5.9.27 it is determined that there is less than substantial harm from all phases of the Proposed Development.
- 6.5.13 The English Lake District WHS is located approximately 3.2km east of the Site. ES Chapter 6 discusses the LDNP as a WHS, with other aspects of this in ES Chapter 7 - Landscape and Visual. There are views into the Site from the fells in the WHS and the ES sets out that there is the potential for significant effects arising from the Proposed Development. However, it concludes that in agreement with the LDNPA:
- '...there would be a minor adverse visual effect over a 40-year period, translating to less than substantial harm to the WHS. The LDNPA recognise that the Proposed Development is not permanent, that the Proposed Development includes new landscaping and an element of co-located agricultural use during operations, and that the infrastructure from the Proposed Development will be removed with full restoration of the Site and return to agriculture at the end of the Proposed Development's operational life' (see ES Chapter 6, section 6.3)*

Undesignated Heritage Receptors

- 6.5.14 EN-3 confirms that generic historic environment impacts are set out in EN-1, Section 5.9 (2.10.111), and in its specific advice on solar farm impacts it advises that, *'Below ground impacts, although generally limited, may*

include direct impacts on archaeological deposits through ground disturbance associated with trenching, cabling, foundations, fencing, temporary haul routes etc.’ (2.10.109) but also that ‘...solar PV developments may have a positive effect, for example archaeological assets may be protected by a solar PV farm as the site is removed from regular ploughing and shoes or low-level piling is stipulated’. (2.10.110)

- 6.5.15 There are potential below ground heritage receptors (archaeological remains) within the Site, consisting of unclassified crop marks and potential ridge and furrow within discrete parts of Area C.

- 6.5.16 The outcome of a geophysical survey targeting Area C is provided by the Geophysical Survey Report (Appendix 6.2) **[REF: 6.3]**. This represents the first phase of field evaluation as recommended by EN-3 which states that ‘*Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, the applicant should submit an appropriate desk-based assessment and, where necessary, a field evaluation....*’ (2.10.113).

- 6.5.17 As per EN-3, and established within Historic England Advice Note 15 (2021)⁵¹, solar farms have the potential to result in adverse effects on below-ground heritage assets but that in the event of archaeological interests being recorded there are opportunities to mitigate potential impact through, for example, ‘*the use of concrete bases for the panels which entail less disturbance*’.

- 6.5.18 Following the EN-3 recommendation, an AMS has been developed in consultation with the Council’s Archaeologist which details further phases of investigation into potential below-ground heritage receptors at the Site, which will begin with a stage of trial trenching in agreed locations where development has the potential to affect the anomalies of potential archaeological origin identified by the geophysical survey.

⁵¹ Historic England (2021) Historic England Advice Note 15: Commercial Renewable Energy Development and the Historic Environment.

- 6.5.19 The AMS sets out a staged approach which is secured by a DCO Requirement. Following development consent, a Written Scheme of Investigation (WSI) will be agreed that is in accordance with the AMS. This will be based on the final layout so that any areas identified in the AMS that are not required for the detailed design may be excluded from further assessment.
- 6.5.20 The staged approach described within the AMS is as follows:
- **Stage 1:** A WSI will be agreed for trial trenching and a programme of works will be undertaken in accordance with the WSI.
 - **Stage 2:** Any further archaeological mitigation requirements will be established with the Council Archaeologist. If additional mitigation is required this will be set out in a construction phase AMS/WSI. Works would be undertaken in accordance with the AMS/WSI.
 - **Stage 3:** Reporting, dissemination, and archiving; the outcome of the investigation will be made publicly available via the HER.
- 6.5.21 The scope of investigations (locations of trenching and the methodology) outlined in the AMS are agreed with the Council's Archaeologist, with some flexibility depending on the layout. This is in alignment with EN-3 which advises that '*The extent of investigative work should be proportionate to the sensitivity of, and extent of, proposed ground disturbance in the associated study area*' (2.10.115).
- 6.5.22 If, following the investigation stage, there are any mitigation requirements, this could be through design (exclusion zones or alternative infrastructure and implementation methods) or through additional measures required by the Council Archaeologist such as a Watching Brief for certain types of works and/or in certain parts of the Site. Mitigation requirements would be approved in an updated AMS/WSI to cover the construction phase.
- 6.5.23 As a results of the Stage 1 investigation, there may be several outcomes:
- If no archaeological finds are uncovered at Stage 1, the Proposed Development can be implemented with nothing further other than the inclusion of a method statement in the Construction Environmental Management Plan (CEMP) for what should occur in the event of any unexpected archaeology being encountered.
 - If archaeological finds are revealed at Stage 1, they may be of a nature that they can be recovered and reported at Stage 3 without the

need for further changes to the design. The Proposed Development can be implemented as-per mitigation to be agreed at Stage 2.

- If archaeological finds identified at Stage 1 are of a nature where either standard implementation or recovery could compromise the assets, there are mitigation solutions including either exclusion zones (removing any/all development) and/or the agreement of mitigation such as no-dig infrastructure for archaeologically sensitive areas.

6.5.24 The proposed programme of archaeological work in the AMS would be initiated prior to the commencement of the construction phase. It makes provision for fieldwork ahead of implementation to inform the detailed design and management plans to control how works occur on the Site.

6.5.25 The AMS provides reassurance that the Proposed Development can be delivered without harm to underground heritage assets. Areas of potential archaeology are discrete and limited to Works No.1, with no potential archaeologically sensitive areas in the Work No. 2 area. The limited ground intrusion and time-limited nature of solar farms makes them compatible with sites of potential archaeological interest. Below-topsoil disturbance is primarily from cabling and piling. Cable can be re-routed to avoid sensitivities and non-intrusive above-ground cable options are available. Likewise, pile-driven mounting structures are not the only option for array framework stability.

6.5.26 For these reasons, regarding the Site's potential below ground heritage, construction is assessed as likely leading to a permanent beneficial residual effect as further evaluation (in accordance with the AMS) would uncover new information, contributing towards the Local HER.

Cultural Heritage Conclusions

6.5.27 In relation to above-ground receptors, ES Chapter 6 confirms:

'The Proposed Development has the potential to have significant effects on the identified designated heritage receptors. However, the Proposed Development would not result in any physical impact or change to these receptors and therefore, there would be no direct physical impacts arising from the Proposed Development. Any impacts would be indirect, arising through a change to the landscape setting of the receptors'. (6.5.3)

6.5.28 The assessment provided by ES Chapter 6 confirms that during operation, no significant effects are reported on the WHS or on potential below ground heritage receptors.

- 6.5.29 The ES identifies temporary (long term) indirect significant adverse residual effects to the Stone Circle and Cairn and Wythemoor Sough through effects on setting. As such, these effects should be considered in accordance with EN-3, 2.10.160 which acknowledges that the SoS should consider the length of time that a solar scheme may cause indirect effects on the historic environment during operation.
- 6.5.30 Furthermore, while effects are determined to be significant with respect to the ES methodology, all effects, in-isolation and cumulatively, are considered to represent less than substantial harm to cultural heritage interests. This is due to distances, topography, and embedded mitigation measures that have informed the parameters of the Proposed Development to help avoid and reduce effects on the historic environment.
- 6.5.31 Measures include the exclusion of generating station equipment from the elevated part of the Site to the south of Area C in proximity to the Stone Circle and Cairn, and also minimising the extent to which the Proposed Development is visible from the WHS, the careful consideration of the positioning of Work Nos. 1 and 2 infrastructure in relation to topography and existing landscape features, retaining vegetation where possible and using appropriate new and improved landscape screening.
- 6.5.32 Overall, the assessments undertaken have not identified anything in respect of archaeology or above-ground heritage interests that would contravene policy. The identified 'less than substantial' harm to heritage assets means that the Proposed Development should be considered against the balancing process identified in EN-1, 5.9.32, which 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'
- 6.5.33 The environmental and social benefits of the Proposed Development are a substantial weight in the planning balance and significantly outweigh the residual heritage impacts as assessed by the ES. As such, it is concluded that the Proposed Development complies with the policies of the NPS including those in EN-1, Section 5.9, EN-3 paragraphs 2.10.107-119 and

2.10.137-138, as well as NPPF Paragraphs 207-216, LPP1 policies S19 and S27, LDNP policies 01 and 07, and CBC policy BE1.

6.6 Landscape and Visual

- 6.6.1 The requirements relating to the assessment of landscape and visual impacts are described in EN-1 at Section 5.10 which acknowledges that all types of energy infrastructure will have such effects depending on the landscape setting and the nature of the development (5.10.1 and 13).
- 6.6.2 EN-1 advises 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.’ (5.10.5). It goes on to set out the expectation that, ‘Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.’ (5.10.6)
- 6.6.3 While EN-1 establishes principles for considering landscape effects from all energy developments, EN-3 provides further insight into this topic specific to solar farms. EN-3 acknowledges that:
- ‘this scale of development will inevitably have impacts, particularly if sited in rural areas.’ (2.10.17) ‘However, whilst it may be the case that the development covers a significant surface area, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography, the area of a zone of visual influence could be appropriately minimised (2.10.95).*
- 6.6.4 EN-5 paragraphs 2.2.8-9 establish that local topography and possibilities for screening are factors in the consideration of the suitability of a location for substations.
- 6.6.5 Requirements of EN-1, 5.10 are addressed by ES Chapter 7 – Landscape and Visual which describes the assessment of the effects on landscape and visual receptors. This includes a consideration of effects on:
- Landscape character;
 - Landscape elements (the ‘fabric’ or features, which contribute to character); and

- Views available to people and their visual amenity, from publicly accessible viewpoints.

- 6.6.6 In doing so Chapter 7 also addresses other topics which the Planning Inspectorate's Scoping Opinion agreed to scope out as standalone chapters, subject to assessment being made of their landscape and visual aspects. As per Table 2.7 of ES Chapter 2 – EIA Methodology [REF: 6.1], this includes matters such as noise, lighting, and glint and glare which are noted in EN-1 (5.10.21-22) as matters with both environmental health and landscape and visual effects.
- 6.6.7 Within this PS these topics are more broadly discussed under section 6.12 – Environmental Health and Amenity, with this part of the appraisal focusing on the Landscape and Visual Impact Assessment (LVIA), (considering landscape and visual effects separately), in line with the Guidelines for Landscape and Visual Assessment (3rd Edition) (GLVIA3), as per EN-1, 5.10.16 and EN-3, 2.10.97.
- 6.6.8 This section also provides insight into the iterative design process resulting in embedded mitigation and additional enhancement measures which minimise negative effects and create positive benefits or enhancements in accordance with EN-1, 5.10.19.

Landscape and Visual Impact Assessment

- 6.6.9 At 2.10.94, EN-3 advises that solar farms '*may have a wider zone of visual influence than other types of onshore energy infrastructure*' but also that despite covering a significant surface area, topography and existing and new screening can minimise the zone of influence (2.10.95). In addition, at 2.9.9, EN-5 indicates '*New substations.... and other above-ground installations that serve as connection, switching, and voltage transformation points on the electricity network may also give rise to adverse landscape and visual impacts*'.
- 6.6.10 Careful consideration has been given to landscape and visual effects from the Proposed Development's outset in accordance with EN-3, 5.10.19. The way in which this topic has influenced Site selection and evolution and the design of the parameters of the Proposed Development within the Site

is summarised more fully at Section 5 of the DAD. To inform the requirements for good design in relation to landscape and visual matters (as per EN-3, 2.10.98) the likely landscape and visual impacts of the Proposed Development have been fully assessed in the LVIA. The key findings are summarised to follow.

- 6.6.11 To understand the baseline conditions of the Site and its surrounding landscape, a desktop study and site visits were undertaken. This was followed by further assessment based on view locations agreed with the Council and LDNPA consultees in accordance with EN-3, 2.10.97. The representative view location photography is provided at ES Appendix 7.5 [REF: 6.3], along with further visualisations provided in ES Appendix 7.6 [REF: 6.3], and corresponding assessment in Section 7.5 of the LVIA.
- 6.6.12 To understand the landscape character of the area, published landscape character assessments were considered including those produced by the Council and the LDNPA, with the full methodology and background sources provided in ES Chapter 7 at Appendix 7.1 [REF: 6.3].
- 6.6.13 ES Chapter 7 characterises the Site and the surrounding area as predominantly rural, with the exception of existing overhead high voltage powerlines and pylons as well as the Wind Farm, which are discordant features within the existing landscape.
- 6.6.14 There are no landscape designations within the Site that would be affected by the Proposed Development, although the internationally recognised LDNP / WHS lies approximately 3.2km to the east of the Site at its closest. In relation to designated landscapes EN-1 advises that *'the aim should be to avoid harming the purposes of designation or to minimise adverse effects on designated landscapes'* and that the fact that a development will be visible from within a designated area *'should not in itself be a reason for the [SoS] to refuse consent'* (5.10.34).
- 6.6.15 As per EN-1, 5.10.21, the LVIA considers the *'visibility and conspicuousness'* of the Proposed Development across its construction, operation, and decommissioning phases.

- 6.6.16 Section 7.3 of Chapter 7 explains that effects on landscape and visual receptors would typically not be significant beyond 2.5km. However, the LVIA has considered the potential effects from the Proposed Development to the LDNP/WHS given the sensitivity of the receptor, as required by EN-1 at 5.10.20 and EN-3 at 2.10.96. Chapter 7 concludes that once proposed landscaping has matured, for the majority of the Proposed Development's lifetime the LDNP/WHS would not experience significant landscape effects. This is also the conclusion of ES Chapter 6 – Cultural Heritage in relation to the WHS.
- 6.6.17 The LVIA notes that significant adverse effects are predicted during the construction phase for some visual receptors, although other receptors including the LDNP and WHS (specifically when considering effects against the Special Qualities of the designation) would not experience significant effects. It concludes that *'significant adverse visual effects during construction are largely focussed on view locations either in close proximity to the Site for highly sensitive receptors, or for very highly sensitive receptors from within the LDNP'*
- 6.6.18 Full explanatory commentary on the magnitude and significance of effects on receptors is set out in ES Appendix 7.2 Schedule of Landscape Effects **[REF: 6.3]**, and ES Appendix 7.3: Schedule of Visual Effects **[REF: 6.3]**.
- 6.6.19 The principal elements and activities that will influence landscape character, landscape features, and visual amenity during the construction phase include the loss of openness and alterations to the existing appearance of the Site caused by construction activities, the introduction of new temporary elements, the effects arising from construction activities such as traffic and plant and machinery noise, and the compounding impact of these effects alongside the emergence of new built forms associated with the generating station.
- 6.6.20 The LVIA recognises that the construction phase is likely to be the Proposed Development's most impactful period, as the Site will contain the temporary construction activities alongside the emerging generating station infrastructure, but without the benefit of the established landscape

measures which will be in effect for visual screening of the Proposed Development for the majority of the operational period and the decommissioning phase.

- 6.6.21 Within the assessment of effects all but the beneficial effects for landscape structure / green infrastructure (GI) are noted as being in some way temporary and/or reversible. This will be relevant in relation to EN-1 at 5.10.36 whereby, *'the [SoS] should consider whether any adverse impact is temporary, such as during construction, and/or whether any adverse impact on the landscape will be capable of being reversed in a timescale that the [SoS] considers reasonable.'*
- 6.6.22 This is mirrored in EN-3 at 2.10.151 which advises that, *'The [SoS] should consider the period of time the applicant is seeking to operate the generating station, as well as the extent to which the site will return to its original state, when assessing impacts such as landscape and visual effects and potential effects on the settings of heritage assets and nationally designated landscapes.'*
- 6.6.23 It is considered that in combination with the Landscape Ecology Plan (LEP) which is to be substantially in accordance with this application's Landscape Strategy Plan (LSP) [REF: 6.2], as implemented via the LEMP (to be substantially in accordance with the OLEMP, the mitigation measures would establish, and the significance of effects would reduce on landscape character and features, and visual amenity, whilst offering the potential for long-term beneficial effects through planting and GI enhancement as discussed further in the section to follow.
- 6.6.24 Visual effects would reduce with distance and be largely contained by both landform and existing and proposed vegetation. The findings of the LVIA confirm that, after construction, the impact of the Proposed Development would reduce rapidly and there would be no significant effects experienced by specific visual receptors for the majority of the Proposed Development's operational life.

Cumulative Effects

- 6.6.25 The cumulative assessment of landscape effects is set out in detail within Appendix 7.4: Cumulative Assessment. This considers the potential

impacts associated with Lostrigg Solar and 'Land at Lillyhall North', a hybrid industrial / employment development west-northwest of the Site. No significant cumulative landscape effects are predicted; any effects would be minimised through landscape mitigation which is proposed. From a visual perspective, road users along Branthwaite Road are predicted to experience significant cumulative effects as they would pass all three developments on their journey in either direction.

Landscape Mitigation and Enhancement

- 6.6.26 NPS EN-1 encourages that landscape effects be considered early and feed into the iterative pre-application design at every stage. At 5.10.6 it states that:
- 'Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.'*
- 6.6.27 Doing so *'will allow the applicant to demonstrate in the ES how negative effects have been minimised and opportunities for creating positive benefits or enhancement have been recognised and incorporated into the design, delivery and operation of the scheme.'* (5.10.19).
- 6.6.28 Mitigation opportunities are specifically discussed in EN-1 at 5.10.26-28. This includes balancing the objectives of renewable energy generation against the benefits of mitigation opportunities, and that careful siting of infrastructure within a Site and choices for materials and finishes can also be influential alongside new planting and management.
- 6.6.29 The Site and design evolution discussed within the DAD demonstrate the Applicant's regard for this part of EN-1. Examples include the early decision to exclude generating station infrastructure from the elevated plateau in Area C, which necessitated the landscape-led selection of additional land (Areas A and B and parts of D) to provide sufficient land to fulfil generation requirements without potentially unacceptable landscape effects. Another is the siting of Work No. 2 infrastructure in a well-contained area informed by both landscape and noise impact assessment to prevent adverse visual and amenity impacts, as per EN-5 Section 2.9.

- 6.6.30 ES Chapter 7, section 7.5, discusses the Proposed Development's embedded mitigation and further enhancement. Section 7.6 goes on to provide an overview of the Proposed Development's additional (secondary) mitigation strategy, which is mitigation that is not directly 'designed-in' as embedded mitigation but is secured through associated management plans such as the CEMP, Operational Management Plan (OMP), and DMP to control environmental effects arising from Site activity which can affect sensitive receptors. This application's outline control documents include measures to protect the soil resource, prevent adverse noise effects, a sensitive lighting, and to generally secure best practice management for the benefit of environmental health and amenity.
- 6.6.31 Embedded mitigation is secured first by the Works Plans and Design Parameters Document (DPD) [REF: 5.7] in relation to the appearance of generation infrastructure, its siting within the Site, and locations in which certain development activities may occur. These have been influenced by various matters, but most predominantly by consideration of landscape, ecological, and cultural heritage impacts before further refinement arising from other technical disciplines.
- 6.6.32 Beyond this is the mitigation secured by the LSP and OLEMP which outline the mitigation and management strategy based on the Parameter Plan (based on the Works Plans) and DPD which will deliver the mitigation recommended by EN-3 at 2.10.131 whereby applicants, '*...should consider the potential to mitigate landscape and visual impacts through, for example, screening with native hedges, trees and woodlands.*'
- 6.6.33 Supported by other control documents, the OLEMP supports the requirements outlined in EN-3 which advises at 2.10.100 that:
'The applicant should consider as part of the design, layout, construction, and future maintenance plans how to protect and retain, wherever possible, the growth of vegetation on site boundaries, as well as the growth of existing hedges, established vegetation, including mature trees within boundaries...'
- 6.6.34 The LVIA, DAD, and Consultation Report provide insight into how the Proposed Development has responded directly to the landscape setting of the Site, including to consultee inputs, and community feedback relevant to landscape and visual matters. This includes:

- Sensitive siting of Work No. 1 and 2 infrastructure, including consideration of topography when defining Work No. 2 (grid connection infrastructure), in accordance with EN-5, 2.2.8;
- Retention and protection of trees and hedgerows within and around the Site, as informed by the Arboricultural Impact Assessment (AIA) (Appendix 7.8, **[REF 6.3]**) in accordance with EN-3 at 2.10.101, with development confined to individual field parcels to ensure it is well integrated into the landscape and benefits from existing screening;
- New native structural landscape planting to provide visual screening, including native hedgerows, hedgerow trees, scrub / shrub planting, with the aim of breaking up the extent of development, and linking existing habitats / landscape features where possible to provide enhanced green infrastructure and biodiversity opportunities;
- Reinforcement of existing field boundaries (hedgerows and dry-stone walls) where beneficial. To include infilling of existing field boundary hedgerows where gappy and management for them to be at 3-3.5m height along with repair of dry-stone walls to be maintained at 1-1.5m;
- Scrub and riparian planting along watercourses to enhance habitat connection and provide enhancements for benefit of watercourses as habitats, landscape features, and for water quality;
- Enhancement to the pond within Area D by removing/clearing existing overgrown vegetation and re-planting with suitable marginal species.
- The inclusion of two new permissive path routes to provide improved opportunities for outdoor recreation;
- Provision of sheep grazing (where possible, and as controlled by a Grazing Management Plan (GMP), providing the opportunity to retain the Site in agricultural use without compromising objectives for ecological betterment; and
- Improved biodiversity across the Site through the creation of a variety of new habitats and management of existing habitats within the Site to improve their quality and functioning as discussed in PS section 6.8.

6.6.35 The DAD and LVIA make clear that great care has been taken in designing a high-quality scheme that secures multifunctional social and environmental gains. The objective of the Proposed Development's landscape strategy and management plans is to integrate the Proposed Development into its surroundings, minimise potential adverse effects, and where possible include enhancement measures.

Landscape and Visual Conclusions

6.6.36 This part of the PS provides an appraisal of ES Chapter 7 against national policy for NSIPs established principally by EN-1 Section 5.10 alongside

technology specific advice relating to landscape and visual effects across EN-3 Section 2.10, and EN-5 Section 2.2.

- 6.6.37 This demonstrates for the SoS that the Proposed Development has been designed carefully, to avoid or mitigate the potential environmental effects on the landscape while also delivering beneficial multifunctional enhancements in accordance with EN-1, 5.10.37 in relation to landscape, and at 5.4.46-47 in relation to biodiversity.
- 6.6.38 In doing so it also complies with policy across the NPPF including at Section 15 – Conserving and enhancing the natural environment, and particularly paragraphs 187 and 189. Corresponding Council policy in the LPP1 relating to requirements for renewable energy development (S19), green infrastructure (S24), safeguarding amenity (S32) and specific policy on landscape (S33). In addition, it complies with LDNP policies 01, 07, and 05, and CBC policies CC1 and N6.
- 6.6.39 It is acknowledged that within the LVIA some significant adverse landscape and visual impacts are envisaged, particularly in the temporary construction period and in the early years of the operational period before the new and improved mitigation and enhancement planting is established. However, beneficial landscape effects will also be delivered by the embedded and additional mitigation proposals to ensure that the duration of any significant effect is minimised such that Proposed Development's visual effects on the landscape and sensitive receptors should be considered acceptable in light of the significant benefits associated with CNP renewable energy infrastructure per EN-1, 5.10.14.

6.7 Ecology and Biodiversity

- 6.7.1 Both national and local policy place great importance on the protection and enhancement of the natural environment. EN-3 covers this topic in paragraphs 2.10.75-92 and 2.10.128-130 and notes that '*Generic environmental, biodiversity, ecology, geological and water management impacts are covered in section 4.3 (Environmental Principles), section 4.6 (Environmental and Biodiversity Net Gain), section 5.4 (Biodiversity and Geological Conservation) and section 5.8 (Flood Risk) of EN-1.*'

- 6.7.2 Section 5.4 of EN-1 requires development to avoid harmful effects on ecological interests and to demonstrate, *‘how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests’* (5.4.19).
- 6.7.3 In order to achieve this EN-1 5.4.17 advises that:
‘the applicant should ensure that the ES clearly sets out any effects on internationally, nationally, and locally designated sites of ecological or geological conservation importance...on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity, including irreplaceable habitats.’
- 6.7.4 In accordance with EN-1 Paragraph 5.4.17, ES Chapter 8 – Biodiversity **[REF 6.1]** clearly reports on the effects of the Proposed Development on biodiversity, considering designated sites (international, national, and local), protected species and habitats of ecological conservation importance. The background to this assessment is reported in the surveys appended to the ES chapter which reflect the input of the Proposed Development’s ecological advisors (in accordance with EN-3 2.10.78) and consultee feedback received via formal consultation and ongoing engagement with the relevant stakeholders.
- 6.7.5 This section of the PS provides an overview of ES Chapter 8, discussing the outcomes of the ecological assessment in relation to the relevant NPS policies. It also sets out the Proposed Development’s approach to BNG as detailed in the BNG Report (ES Ch.8, Appendix 8.8). Ahead of this is the introduction to habitats and species regulations that have informed the scope of the ES chapter.

Habitats and Species Regulations

- 6.7.6 Regulation 63 of the Conservation of Habitats and Species Regulations 2017 (as amended)⁵² indicates that the ‘Competent Authority’ must make an ‘Appropriate Assessment’ of the implications of a proposed development on a European Site in view of that European Site’s Conservation Objectives, i.e., to undertake a Habitats Regulation Assessment (HRA). Paragraph 5.4.25 of NPS EN-1 states that applicants

⁵² The Conservation of Habitats and Species Regulations 2017 No. 1012

should provide sufficient information to the SoS to determine whether an HRA Appropriate Assessment is required.

6.7.7 Paragraph 4.2.19 of EN-1 states that:

‘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’.

6.7.8 EN-1 Paragraph 5.4.49 goes on to advise that the SoS:

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

6.7.9 A Shadow Habitats Regulations Assessment (sHRA) (ES Ch.8, Appendix 8.7) [REF: 6.3] has been prepared which concludes that, subject to the implementation of mitigation measures set out by Chapter 8, there will be no impact to the integrity of the River Derwent and Bassenthwaite Lake Special Area of Conservation (‘SAC’) or its Conservation Objectives. Detailed discussion of the ecological assessment as it relates to the sHRA and the requirements of EN-1 Section 5.4 is provided in ES Chapter 8.

Ecological Assessment

6.7.10 As confirmed through field surveys, the Site largely comprises modified grassland in line with its function as sheep grazing pasture. Notable habitats within the Site include lowland dry acid grassland (supporting a purple moor-grass (PMG) community), ponds, hedgerows, areas of woodland, and watercourses. A stand of replanted ancient woodland is present outside the Site adjoining the western boundary of Area C.

6.7.11 The Site is not located within or in close proximity of any statutory designated sites, though it is hydrologically linked to the internationally designated River Derwent and Bassenthwaite Lake SAC and the nationally designated River Derwent and Tributaries Site of Site of Special Scientific Interest (‘SSSI’) which are approximately 1.2km east of the Site. A non-statutory designated site, Dean Moor County Wildlife Site (‘CWS’), is partially located within the southern part of the Site (Area C) and Special

Roadside Verge ('SRV') MP K3 is present along an approximately 200m section of the eastern boundary of Area C.

- 6.7.12 Comprehensive ecological surveys have been undertaken to provide information on habitats and species including great crested newts ('GCN'), bats, breeding bird, otter, water vole, wintering bird, and hen harrier. The Site supports several species of breeding bird, especially in hedgerow and woodland. Wintering bird surveys confirmed the Site was used by a range of species, including qualifying species of the Solway Firth Special Protection Area ('SPA'). Signs of bat foraging and otter commuting were identified however hen harrier, GCN, and water voles were not present.
- 6.7.13 ES Chapter 8 indicates that the Proposed Development has the potential to directly impact habitats and species through construction related activities, particularly if works were to occur during sensitive periods, such as the breeding bird season. The mitigation measures to avoid these effects are described in further detail in the following section.
- 6.7.14 Once constructed, vegetation structure, habitat complexity, and plant diversity will be enhanced, as detailed in the sections below.

Ecological Mitigation

- 6.7.15 Mitigation measures to avoid or reduce negative effects, ensure legal compliance, ensure best practice is delivered, and to contribute to environmental enhancements including delivery of biodiversity net gain are set out across the control documents, including the following:
- **OCEMP** - overarching construction control including specific sections on ecological, arboricultural, and hydrological interests which directly link to ES Chapter 8, as well as other knock-on sections such as waste management and pollution prevention.
 - **OSMP** - supports the conservation of the soil resource (quality and quantity) in construction and is relevant to both construction and operational phase ecological interests.
 - **OLEMP** - governs implementation and management of mitigation and enhancement measures relating to ecological interests and secures the delivery of BNG.
 - **OGMP** - supports co-located grazing to occur in a way that does not undermine biodiversity and water quality objectives.

- **OOMP** – operational management for activities that can have ecological knock-ons absent sufficient controls.
- **FDMP** – represents a suite of control documents to be provided to manage the decommissioning works. As a minimum this suite will include documents equivalent to those of the construction phase.

- 6.7.16 The parameters and control documents by which mitigation is secured reflect the expectations of EN-3 for soil resource conservation (2.10.81), a sensitive lighting strategy (2.10.82) vegetation and boundary management (2.10.83), the avoidance of new watercourse crossings (2.10.86-88), BNG delivery and habitats and species enhancement (2.10.89 and 2.10.128-129), and ongoing monitoring and reporting coupled with responsive Site management (2.10.90 and 2.10.130).
- 6.7.17 Embedded and additional mitigation measures will result in no significant residual negative effects to designated sites, habitats and species during construction, operation and decommissioning of the Proposed Development. The implementation of a LEMP, accompanied by a GMP, will have a positive impact on habitats and species by supporting sensitive habitat management and the cessation or relaxation of sheep grazing.
- 6.7.18 A part of Dean Moor CWS is included in Work Nos 1 and 3. Should this be included in the final layout, during construction there will be a residual effect on this part of the CWS that is significant at the local level. During operation, re-establishment of natural habitats across a larger area of the CWS, including parts with co-located infrastructure, will offset any negative residual construction effects. Overall, given the large area to be enhanced, residual effects to the CWS are likely to be positive at the local level.
- 6.7.19 The Proposed Development has the potential to result in disturbance to features of ecological sensitivity during construction. The suite of control documents which are proposed and summarised in paragraph 6.7.15 specify the measures which will be required to address these effects.

Ecological Enhancement

- 6.7.20 For this PS the concept of ecological enhancement encompasses the outcome of measures defined by EIA methodology as embedded and

additional mitigation, along with measures that EIA terms as enhancements, so is not confined to merely the latter.

Biodiversity Net Gain

- 6.7.21 BNG is not a legal requirement for the Proposed Development as the relevant provisions of the Environment Act 2021 are not yet in force for NSIPs. However, EN-1 (Sections 4.6 and 5.4) and EN-3 (paragraph 2.10.128) suggest that applicants should aim to achieve environmental gains and BNG in accordance with statutory targets set under the EA 2021 (or elsewhere). LPP1 Policy S35 also indicates the Council will ‘*seek positive improvements to the quality of the natural environment through sustainable development resulting in net gains for biodiversity*’.
- 6.7.22 The approach to improving biodiversity across the Site has accounted for features such as woodland, hedgerows, ponds, and watercourses which will be retained and protected during construction as per the OCEMP and subject to management/enhancement measures as per the OLEMP.
- 6.7.23 Utilising Defra’s Statutory Biodiversity Metric Tool (‘the Statutory Metric’)⁵³, the BNG for the Proposed Development has been calculated as 114.69% for habitats, 44.84% for hedgerows and 12.56% for watercourses through creation and enhancement as visualised in the LSP.
- 6.7.24 As secured via the OLEMP, the minimum BNG to be delivered based on the Proposed Development’s detailed design will be 60% for habitats, 20% for hedgerows and 5% for watercourses. While this minimum is less than that calculated by the Statutory Metric based on the parameters and LSP, this is intended to support flexibility for the final design and to reflect up to date assessment of the baseline conditions. It is expected that BNG outcomes will be closer to the aspirational metric figures, with these lower commitments representing a worst case. Despite this conservative approach the BNG secured is significantly in excess of the 10% target.

⁵³ Department for Environment, Food and Rural Affairs (2024) Statutory Biodiversity Metric Tool

- 6.7.25 Should development consent be granted, a LEP, to be substantially in accordance with the LSP, will provide a detailed environmental masterplan that reflects the final layout of the generating station infrastructure alongside landscaping and ecological measures. This LEP, along with up-to-date baseline assessments, will be the basis of final BNG calculations, with the LEMP to set out the implementation, maintenance, and monitoring required to achieve the BNG outcomes.

Green Infrastructure

- 6.7.26 EN-1 and EN-3 also encourage applicants to consider wider gains. Paragraph 4.6.13 of EN-1 states:

‘Developments may also deliver wider environmental gains relevant to the local area, and to national policy priorities, such as reductions in GHG emissions, reduced flood risk, improvements to air or water quality, climate adaptation, landscape enhancement, increased access to natural greenspace, or the enhancement, expansion or provision of trees and woodlands. The scope of potential gains will be dependent on the type, scale, and location of specific projects. Applicants should look for a holistic approach to delivering wider environmental gains and benefits through the use of nature-based solutions and Green Infrastructure.’

- 6.7.27 As described in the DAD, the Proposed Development aims to deliver multifunctional GI that supports the joint climate and biodiversity emergency as embedded in the Project DPs. As per the OLEMP, the Proposed Development aims to increase biodiversity and habitat value and enhance green infrastructure networks on Site, with measures that include, but go beyond, the Statutory Metric outcomes.
- 6.7.28 On this basis, the Proposed Development would deliver the following environmental measures:
- Improvements to water quality within existing ponds and watercourses in the Site through reduced intensity of sheep grazing, land use change, and increased marginal and riparian planting within the Site;
 - Increase the quality of existing pond habitats for species to ensure ongoing health and longevity;
 - Installation of bird and bat boxes in suitable locations across the Site, and creation of habitat log piles to provide shelter for various species, including but not limited to hedgehogs, reptiles, amphibians and invertebrates;
 - Existing hedgerows to be retained and enhanced, and new hedgerows to be established to benefit landscape screening and biodiversity;

- Protect and enhance existing woodland and hedgerows during construction and operation;
- Increase availability of scrub habitats across the Site to provide cover for species, in particular nesting birds;
- Improvement of grassland habitats across the Site to enhance species composition, sward diversity, and promote flowering which will support invertebrates, birds, mammals, and pollinators;
- Expand the coverage of existing lowland acid grassland on Site and reinstate existing habitat within the Dean Moor CWS;
- Improved accessibility to nature through proposed Permissive Paths, described in further detail in section 6.9 of this PS.

6.7.29 Ecological enhancements will occur throughout the Site, and protection of ecological interests secured by the LEMP with long term care and responsiveness to a changing climate embedded in that document. The LEMP provides for regular monitoring and an update every 5 years to ensure relevant stakeholders have insight into progress in the delivery of the Site's biodiversity and green infrastructure benefits.

Ecology and Biodiversity Conclusions

- 6.7.30 This section of the PS describes how the surveys and assessments respond to national and local policy requirements and demonstrates how proposed mitigation and enhancement measures responds to the sensitive habitats and species present within the Site.
- 6.7.31 The sHRA demonstrates no potential effects on the UK national site network, responding positively to EN-1 paragraphs 4.2.19 and 5.4.49.
- 6.7.32 A comprehensive set of mitigation and enhancement measures secured by Works Plans and control documents respond to the habitats and species present within the Site and its surroundings. The approach to mitigation and enhancement respond positively to EN-1 and local policy including LPP1 policies S35 and DM17 and CBC policies N1 and N14.
- 6.7.33 This PS, ES Chapter 8, the BNG Report, and OLEMP demonstrate how the Proposed Development will deliver a significant increase in biodiversity across a wide range of habitats. The commitments secured in respect of BNG are strongly supported by EN-1 (sections 4.6 and 5.4) and EN-3 (paragraph 2.10.128), LPP1 policy S35, and CBC policy N3.

- 6.7.34 The ecological mitigation and enhancements have been designed to respond positively to existing woodland and watercourses as opportunities for ecological, landscape, blue infrastructure, and water quality enhancements considered in more detail in Sections 6.6 and 6.7 to follow.

6.8 The Water Environment and Flood Risk

- 6.8.1 Planning policy requires that development avoid unacceptable levels of flood risk and expects applicants to ensure that developments account for increasing flood risk as a result of climate change, are designed to be flood resilient, include measures to mitigate the risk of flooding, and do not increase flood risk elsewhere. This topic is covered in EN-1 at section 5.8. Paragraph 5.8.6 confirms that the aim of planning policy on this topic is to ensure that flood risk is taken into account and that proposals avoid development in inappropriate locations. EN-1 goes on to advise 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. Mitigation measures should make as much use as possible of natural flood management techniques.'* (5.8.12)
- 6.8.2 As per Table 2.7 of ES Chapter 2 the Planning Inspectorate's Scoping Opinion agreed to scope out flood risk and surface water runoff matters as a standalone chapter, subject to ensuring there will be no increase in flood risk and agreeing drainage design and mitigation measures with the EA and LLFA. The general approach to drainage has been agreed with the LLFA and is secured by a DCO requirement.
- 6.8.3 A FRA which includes an ODS is provided to demonstrate the Site's hydrological context and the potential effects on the water environment on and from the Proposed Development. This provision reflects alignment with the EN-1 paragraphs 5.8.13–28 and EN-3 paragraph 2.10.84.

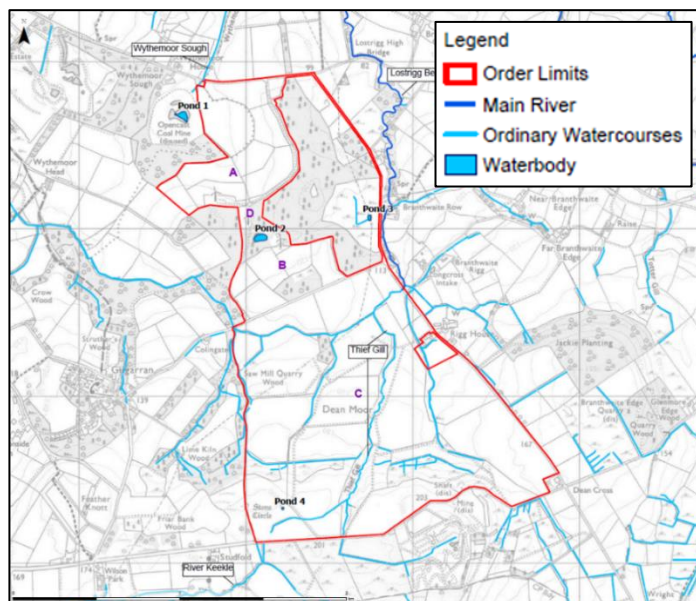
Flood Risk Assessment

- 6.8.4 The water environment of the Site includes several ordinary watercourses which provide land drainage and flow across the southern part of the Site (Area C), the most significant among them being the 'Thief Gill' (see Figure 3.1) (FRA_005 in Appendix A). Linear watercourses within the Site

are confined to Area C and these flow through the Site from the south and west, combining and flowing towards the north-east corner of Area C. After passing beyond the Site and under Branthwaite Edge Road, the combined channel becomes an EA designated ‘main river’, the Lostrigg Beck, which continues north to eventually outfall into the River Marron, approximately 6.5km northeast of the Site.

- 6.8.5 There are no ordinary watercourses within Areas A or B, but the land falls towards the north-west corner of the Site where a land drainage channel, the ‘Wythemoor Sough’ is formed flowing north beyond the Site boundary. There are no watercourses present over Area D although the only permanent waterbody (pond) within the Site is within this area.

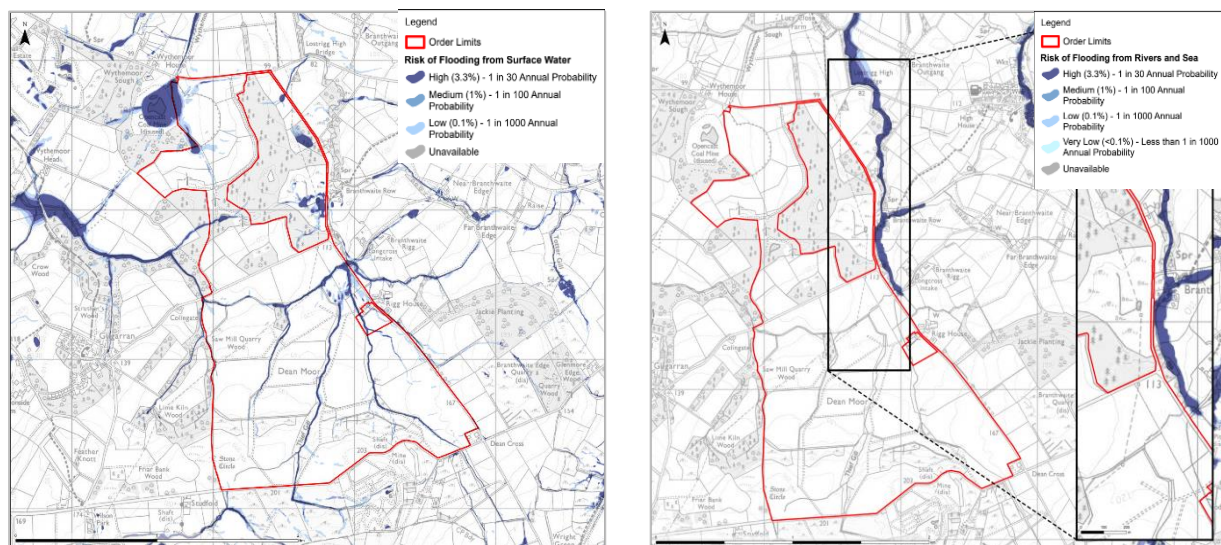
Figure 6-1: Hydrological Context of Site



- 6.8.6 As per EA mapping,⁵⁴ and the Figure 6-1: Hydrological Context of Site extracts based on this mapping, the Site is at low risk from flooding from all sources. The Site is located within Flood Zone 1 with 'Low Probability' of fluvial flooding and has mostly a ‘Very Low’ risk of surface water flooding with only some areas of surface water flood risk along the linear watercourses or corresponding with other topographical depressions on the Site.

⁵⁴ GOV.UK (2025). Long term flood risk service. Available at: <https://check-long-term-flood-risk.service.gov.uk/postcode>. Accessed February 2025

Figure 6-2: Pluvial (Surface Water) (left) and Fluvial (Rivers) Flood Risk



- 6.8.7 The NPPF describes the need for a sequential risk-based approach to be taken in determining the suitability of land for development in flood risk areas, with the intention of steering all new development to the lowest flood risk areas. EN-1 Paragraph 5.8.10 and NPPF paragraphs 173 to 177 sets out the requirement for the Sequential Test to consider flood risk. The NPPF indicates that *'The sequential test should be used in areas known to be at risk now or in the future from any form of flooding'*. And that *'Having applied the sequential test, if it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives), the exception test may have to be applied....'*
- 6.8.8 Based on the low-risk conditions, the Proposed Development meets the requirements of the Sequential Test, with no Exception Test required as detailed in EN-1 paragraph 5.8.10. The Site is located outside the fluvial floodplain and is not considered to be at risk when peak river flows, incorporating climate change impacts, are considered.
- 6.8.9 Although solar farms are compatible with areas of flood risk (as confirmed by the NPPF and PPG which designate solar as 'Essential Infrastructure' capable of being accommodated in flood risk zones), a sequential approach has been applied to the design of the Proposed Development, to

focus development in areas of low surface water flood risk, with any encroachment into moderate or higher risk areas limited to aspects that have no impact such as perimeter fencing, permeable access tracks, or new landscaping which can provide betterment. This is reflected in the Works Plans which secure minimum buffers of 8m to all watercourses in line with LLFA requirements. This reflects the recommendation of EN-3 paragraph 2.10.86 that, *'Given the temporary nature of solar PV farms, sites should be configured or selected to avoid the need to impact on existing drainage systems and watercourses'*.

- 6.8.10 With respect to flood risk to the Proposed Development, the FRA concludes there is no risk, and no risk that the Proposed Development may contribute to flood risk elsewhere. For the latter to be fully secured, and for compliance with the NPS including EN-3 2.10.84-86 and EN-1 5.8.24-29, a sustainable drainage (SuDS) strategy is incorporated into the Proposed Development and discussed below.

Sustainable Drainage Strategy

- 6.8.11 For the purpose of the FRA and this PS the term SuDS aligns with the meaning of the term as set out in EN-1 5.8.25 which advises that, *'the term SuDS refers to the whole range of sustainable approaches to surface water drainage management.'*
- 6.8.12 The ODS within the FRA sets out the approach to drainage to manage surface water runoff at the Site. A Drainage Strategy (DS) that reflects the final layout is secured by a DCO Requirement. The DS will be substantially in accordance with the ODS which reflects an approach that has already been agreed with the LLFA and the recommendations of the NPSs which advance *'multifunctional sustainable drainage systems, natural flood management and green infrastructure'* (EN-1, 5.8.32) as a means to mitigate flood risk and provide wider benefits.
- 6.8.13 The SuDS strategy as established by the ODS is a landscape-led nature-based-solutions (NBS) approach. It reflects the Proposed Development's temporary nature which means maintaining existing greenfield runoff characteristics as much as possible, minimising impacts on the existing

blue infrastructure network, relying on existing and new landscaping to provide the majority of SuDs services and betterment, and targeting non-organic SuDs to the limited features of the generating station that are capable of representing new hardstanding (impermeable surfaces).

- 6.8.14 The approach to SuDs is reinforced by the research of Cook and McCuan (2013)⁵⁵ which confirms 'the change in runoff characteristics from solar farm sites is likely to be insignificant and that ground cover has a highly significant control over runoff.' It also notes that 'the addition of solar panels over a grassy field does not have much of an effect on the volume of runoff, the peak discharge, nor the time to peak' if grass cover is located underneath panels and between rows, concluding that this is true for a range of return periods and storm durations. On this basis, the Cook and McCuen study concludes that solar farms only significantly change the hydrologic response under a scenario where gravel is placed under panels, or if patchy or bare ground is created under/between arrays.
- 6.8.15 The core component of the SuDS strategy is to ensure grass cover is maintained on the ground under and around the solar PV arrays (Work No. 1). Existing grass coverage will be protected from undue disturbance by following the requirements of the CEMP and SMP, with re-seeding to be provided and grass cover maintained thereafter.
- 6.8.16 The proposed planting as illustrated on the LSP (ES Figure 7.6.1-7.6.5), and its management outlined by the OLEMP, includes grassland ground cover and new and improved boundary vegetation. Such features will reduce runoff, encourage interception, infiltration and evapotranspiration, and provide water quality treatment before surface water enters watercourses within and surrounding the Site and will also provide effective mitigation against soil erosion. As vegetation management will be provided by the LEMP, the DS to be provided will focus on only those aspects of the Site's SuDS that are not related to vegetation management.

⁵⁵ Cook, L. M., & McCuen, R. H. (2013). Hydrologic Response of Solar Farms. *Journal of Hydrologic Engineering*, 18(5).

- 6.8.17 Along with vegetation, temporary or permanent infiltration swales may be provided in targeted locations depending on the final layout. If swales will only be included for the operational phase they would not be formed until the end of construction to avoid introducing additional bare earth in that phase. Temporary swales may be beneficial during construction as that phase will not benefit from the new and improved planting. Details of temporary swales or other surface water mitigation measures such as the use of silt fencing are set out in the OCEMP. Details of any permanent swales will be provided in the DS.
- 6.8.18 New and improved landscaping and LEMP management will be complemented by inherent mitigation (e.g. grassland gaps between arrays) and targeted SuDS. This includes the parameter that internal access tracks within the Site will be formed of permeable materials (MOT Type 3 or similar). Where hardstanding may be introduced (e.g. due to LHA specifications) for tracks, drainage will be integrated into the design.
- 6.8.19 Targeted SuDS will be implemented for ancillary buildings and structures, capable of representing new hardstanding. SuDS are likely to comprise gravel sub-bases or filter drains. The exception is for Work No. 2 where the drainage design may include attenuation tanks and piped outfall to the watercourse depending on the outcomes of the DNO design. The design of SuDS detailed in the DS will account for climate change and be supported by micro-drainage calculations to demonstrate their long-term suitability. The DS will set out whole-life maintenance of any SuDS in accordance with the SuDS Manual (C753F)⁵⁶.
- 6.8.20 The Proposed Development prioritises a NBS approach to SuDS that is appropriate for the temporary development and the eventual restoration to its existing use. Implementation and management of the soft landscaping (ground cover and boundaries) are the primary mechanism for surface water management and will provide multifunctional benefit compared to existing intensive agricultural practices. This approach aligns with the

⁵⁶ Construction Industry Research and Information Association (2007) The SuDS Manual (C753F)

expectations set out in EN-1 section 5.8 and the detailed solar-specific policy of EN-3 at 2.10.84–86.

Water Quality and Resources

- 6.8.21 Water quality and resources is covered in Section 5.16 of EN-1, which recognises that developments can adversely affect the water environment, including groundwater and inland surface water.
- 6.8.22 Table 2.7 of ES Chapter 2 – Methodology sets out the justification for scoping out a standalone chapter on water quality and resources, which is primarily because the nature of the Proposed Development means the potential for significant effects is limited and can be entirely assessed in the content of ES Chapters such as Biodiversity (8) and Ground Conditions (10), and managed via the control documents (e.g. CEMP, LEMP, SMP, DS) arising from other parts of the ES. That water quality is intertwined with biodiversity for solar farms is reflected in EN-3 which covers '*Biodiversity, ecological, geological conservation and water management*' as a single topic area for assessment and mitigation.
- 6.8.23 The design of the Proposed Development is cognisant of reducing impacts on the water environment. Among other things its Works Plans include a minimum 8m buffer for watercourses except where there are existing crossings, the use of which would be subject to secondary LLFA consent.
- 6.8.24 The OCEMP and OSMP provide construction management measures that directly relate to water quality effects, including general housekeeping (how/where things are sited), pollution prevention (including dirt/dust and contamination incidents), waste management, the use of barriers such as silt fencing, and other measures which have knock-ons for water quality such as the restriction of works depending on soil wetness conditions.
- 6.8.25 Measures in these construction stage documents which relate to water quality are also taken forward into the operational phase via the OMP and LEMP which includes the GMP. An objective of the GMP is to prevent overgrazing and agricultural runoff into watercourses. Other measures such as the requirement that dry methods or distilled water are used to

clean solar arrays, or the avoidance of widespread pesticide use, and the new planting and management regime of the LEMP will provide for both protection and betterment of the watercourses through the Site.

- 6.8.26 The assessment of impacts provided by ES Chapters 8 (Biodiversity) 10 (Ground Conditions) and other parts of the ES such as the FRA (Appendix 2.4) demonstrate the nature of potential effects on water quality and have led to mitigation, management, and enhancement measures in the suite of outline management plans for all phases. This approach is consistent with EN-1 at 5.16.8 which advise that the SoS should consider mitigation measures beyond that which is part of the design (for this project, the parameters which include exclusion zones) and that. *‘a construction management plan may help codify mitigation at that stage’*. It goes on to say that *‘risk of impacts on the water environment can be reduced through careful design to facilitate adherence to good pollution control practice. For example, designated areas for storage and unloading, with appropriate drainage facilities....’*; (5.16.9) all of which are secured by the Proposed Development’s Works Plans, parameters, and control documents.

The Water Environment and Flood Risk Conclusions

- 6.8.27 The FRA and ODS (ES Ch.2, Appendix 2.4) demonstrates that the Proposed Development is not at risk from flooding and will not increase the risk of flooding elsewhere. The FRA reflects the requirements of EN-1 for what an FRA should include for an appropriate assessment. EN-3 advises that *‘Where a Flood Risk Assessment has been carried out this must be submitted alongside the applicant’s ES. This will need to consider the impact of drainage. As solar PV panels will drain to the existing ground, the impact will not, in general, be significant’*.
- 6.8.28 The ES concludes that impacts from and to the water environment will not be significant and the Proposed Development provides an opportunity for blue infrastructure enhancements. In addition, water quality is expected to benefit from the reduction in sheep grazing and green infrastructure measures in the areas surrounding the watercourses.

- 6.8.29 The ODS in the FRA provides the foundation of a NBS approach to SuDS to maintain existing natural greenfield characteristics and minimise impacts on overland flow routes while providing betterment through new and improved landscaping. This reflects an approach recommended by EN-3 which notes that:

‘Water management is a critical component of site design for ground mount solar plants. Where previous management of the site has involved intensive agricultural practice, solar sites can deliver significant ecosystem services value in the form of drainage, flood attenuation, natural wetland habitat, and water quality management.’ (2.10.154).

- 6.8.30 The Proposed Development’s approach to assessment and drainage have been informed by engagement with the EA and LLFA. Consultation has helped secure mitigation measures that meet local and national flood risk management standards. Engagement is summarised in FRA Table 1.1.

- 6.8.31 This section demonstrates the Proposed Development is compliant with the NPPF, NPSs, PPG, local planning policy, and responds positively to LLFA and EA advice provided during the pre-application process. Based on the implementation of the proposed drainage strategy there will be no flood risk to or resulting from the Proposed Development, and effects on water quality can be avoided through best practice. The Proposed Development should therefore be considered acceptable and in accordance with the NPPF (paragraphs 161-182), LPP1 policies S29 (flooding) and S36 (water quality), and CBC policy N5.

6.9 Transport and Access

- 6.9.1 As set out in PS section 6.3, matters of transport and access can be critical to whether a site is suitable for renewable energy development. This is confirmed by EN1 Section 5.14 which describes the potential impacts of traffic and transport in relation to new energy infrastructure. Paragraphs 5.14.1-3 of NPS EN-1 note that there may be economic, social and environmental effects from traffic and transport.
- 6.9.2 EN-1 paragraphs 5.14.5-7 require that an applicant’s ES include a transport assessment if a development is likely to have significant transport implications and that the SoS may refuse development consent if

a development would cause an unacceptable impact on highway safety or severe cumulative impacts as per paragraph 5.14.21.

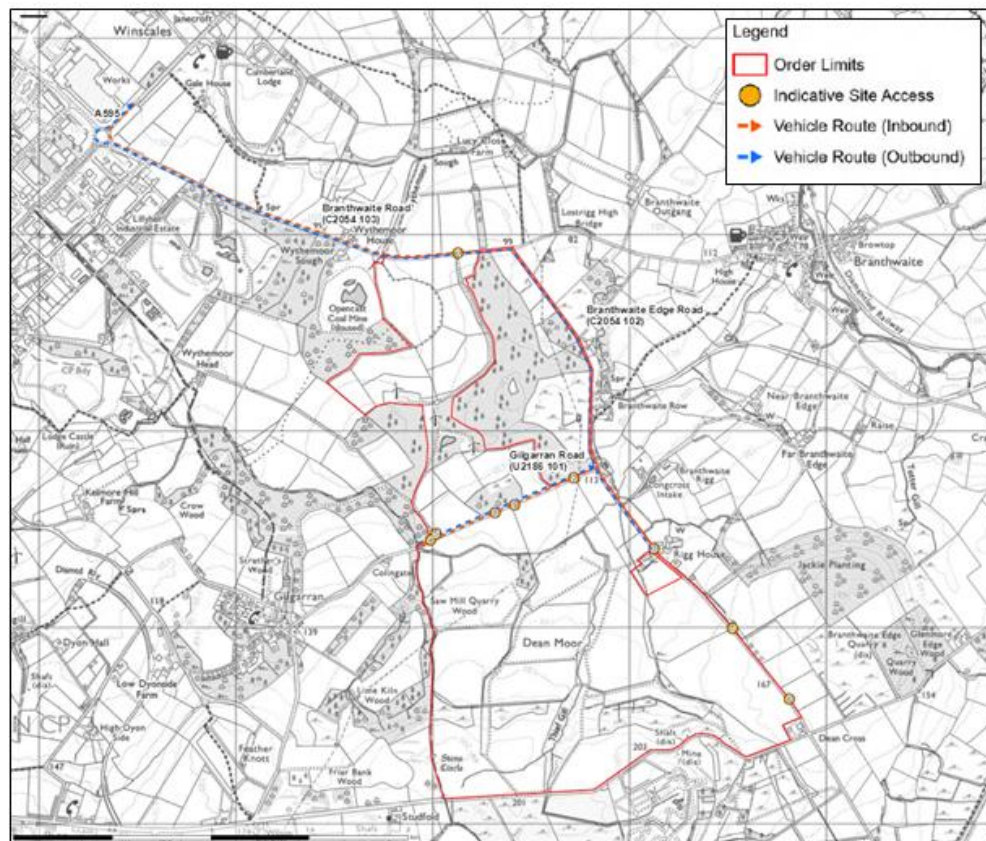
- 6.9.3 In EN-3, which provides technology specific policy on accessibility matters at 2.10.35 -45, advises that solar farm applicants need to ‘*consider the suitability of the access routes to the proposed site for both the construction and operation of the solar farm with the former likely to raise more issues.*’ (2.10.35). In doing so it also notes that as solar farms are typically located in rural areas such that construction accessibility is a significant consideration (2.10.36)
- 6.9.4 In accordance with the Planning Inspectorate’s Scoping Opinion, this topic is addressed in a Transport Statement (TS) **[REF: 6.3]** and OCTMP which are provided as ES Appendices 2.5 and 5.2 respectively. The outcomes of the TS and OCTMP have been incorporated into ES via Chapter 5 – Construction and Decommissioning.

Transport and Access Assessment

- 6.9.5 The TS considers the suitability of the surrounding highway network, sets out the proposed routing from the Strategic Road Network (SRN) to the Local Road Network (LRN) and provides details of proposed Site access arrangements. It also sets out the aspects of the Proposed Development’s transport requirements (e.g. types of vehicles, trip numbers, parking requirements) relevant to an assessment of suitability or to determine any mitigation measures for the effects arising from transport and access requirements in construction and operation (with decommissioning effects deemed as the equivalent to those of construction).
- 6.9.6 The OCTMP builds on the work of the TS to set out measures to control and manage construction traffic. In preparing the TS and construction traffic management plan (CTMP) TMP regard has been had for engagement with NH and the Council as Local Highway Authority (LHA) as well as inputs from the local community. Transport and access proposals have undergone extensive optioneering and appraisal to provide the most efficient and safe routing strategy and access arrangements, and construction management measures.

- 6.9.7 One of the advantages of the Site is that it is situated in rural fringe countryside which is remote in terms of proximity to visual receptors, but its proximity to the Lillyhall Industrial Estate and history of mining means it is well served by a SRN (the A595 which connects to the A66 is 2km west) and is access via a LRN able to accommodate construction traffic.
- 6.9.8 The Site itself benefits from a number of existing access points with no new accesses required. The LHA have confirmed they don't expect to need any significant works for improvements to make the route suitable. The on-Site cable route means no extensive disruptive road works are not required to connect to the grid. The TS demonstrates that the route to the Site, and access into the Site, support this location as one that is suitable for the Proposed Development subject to relatively standard construction traffic management best practice for solar farms.
- 6.9.9 The proximity to the SRN, the nature of the LRN between the SRN and the Site, and the nature of existing accesses, means many of the accessibility issues raised by EN-3 paragraphs 2.10.35-39 and 2.10.120-125 are resolved for the Proposed Development. These positive conditions for accessibility are reinforced by management mechanisms derived from the TS assessment and secured via the OCTMP which meets the expectations of EN-1 paragraphs 5.14.11-17.

Figure 6-3: Vehicle Routing



- 6.9.10 As per the TS, vehicle trips generated during peak construction phases (the worst case) are anticipated to be a daily average of approximately 20 HGV trips (40 movements) and 8 LGV trips (16 movements). These would be spread across the day as per the working hours set out in the OCTMP and OCEMP. HGV traffic to the Site would be managed through delivery scheduling and avoiding network peak hours wherever possible.
- 6.9.11 During construction the average number of workers is likely to be around 80 a day, but staff numbers may peak at up to 150 per day, although worker traffic will be significantly less and is supported by the Outline Construction Worker Travel Plan (OCWTP) included within the OCTMP.
- 6.9.12 There will be sufficient parking areas within the temporary construction compounds for all worker vehicles, as well as holding and turning areas for HGVs to ensure all vehicles can leave and enter in a forward gear and no vehicles have to wait or park on the public highway. The temporary compounds will also provide other facilities to prevent impacts on the

highway such as wheel washing. The TS finds that the impact from the construction phase on the LRN and SRN is expected to be negligible.

- 6.9.13 During the operational phase impacts will be limited, as confirmed by EN-3 at paragraph 2.10.161-162. Movements are expected to be around 2 visits a week for maintenance and occasional ad-hoc HGV visits are expected. These vehicle movements are considered to have an imperceptible impact on the SRN and LRN, although as set out in the OOMP, maintenance visits would be timed to avoid peak hours wherever possible.
- 6.9.14 Regarding sustainable transport, bus services would not be affected by the Proposed Development's construction or operation. Given there are no walking or cycling facilities on the LRN adjacent to the Site and the estimated vehicle movements, local road and PRow walking and cycling activity would not be affected. The Proposed Development also includes a minimum of two electric vehicle (EV) charging points to be provided to support the transition to electric Operational and Maintenance (O&M) vehicle fleets in accordance with EN-1 at paragraph 5.14.12.

Cumulative Effects

- 6.9.15 Both EN-1 (at 5.14.21) and EN-3 (2.10.126) note the importance of considering cumulative effects on transport from other developments, particularly other solar developments. In its section on mitigation for transport matters EN-3 notes that:
- 'Where cumulative effects on the local road network or residential amenity are predicted from multiple solar farm developments, it may be appropriate for applicants for various projects to work together to ensure that the number of abnormal loads and deliveries are minimised, and the timings of deliveries are managed and coordinated to ensure that disruption to residents and other highway users is reasonably minimised.'* (2.10.141).
- 6.9.16 Cumulative effects are considered throughout each part of the ES. In relation to other actual or potential (in planning) developments, generally the TS finds no potential for cumulative effects that would alter its conclusions or recommendations. However, the TS notes that there is an emerging scheme, Lostrigg Solar which has been subject to EIA scoping but has not initiated statutory consultation so there is no further publicly available information for review at the time of this application's submission.

- 6.9.17 As set out in the TS and in ES Chapter 5 – Construction and Decommissioning, solar farm construction is not a flat process but is more akin to a bell curve with a peak period that tapers off either side. Given the stage at which Lostrigg Solar is in the DCO process compared to the Proposed Development, and the way in which the grid connection queue operates, fully concurrent construction programmes are considered unlikely.
- 6.9.18 If there is overlap it would more likely be of concurrent opening and closing stages. This can reasonably be expected to result in traffic volumes similar to the Proposed Development's peak construction traffic in-isolation, as assessed in the TS as not having unacceptable effects.
- 6.9.19 The TS considers that based on the information available, it is not impossible that these projects could have partially overlapping construction periods, and therefore assumes a worst-case scenario of fully concurrent construction, including concurrent peak stages. It concludes even if this does occur the SRN and LRN have sufficient capacity to accommodate the traffic associated with both projects subject to both of these schemes having a CTMP in place to manage traffic effects.
- 6.9.20 At the same time, it acknowledges that a full understanding of capacity and effects could depend on further analysis based on information available only in the pre-construction phase in the event of an actual or potential overlap. Nevertheless, even in a worst-case scenario of fully concurrent construction, this would result in the need for collaborative engagement between the two schemes, as opposed to an outcome whereby the capacity of the SRN and LRN would be rendered insufficient and effects on safety and amenity would be severe.
- 6.9.21 The OCTMP includes commitments to engage with Lostrigg Solar in the event of an overlap, and its measures will be supported by updating analysis and reflect engagement with both NH and the LHA. At the time of writing, it is considered premature to set out all areas where collaboration can be achieved, but for transport and access, such measures would likely relate primarily to degrees of coordination in HGV booking systems to

minimise overlapping traffic on the A595 Lillyhall Roundabout, opportunities in relation to worker traffic, and other areas where trip generation reductions may be possible. Joint ways of working to minimise time demands on the local communities in the area (e.g. joint construction liaison group meetings) could also be considered.

- 6.9.22 The expectation of post-consent engagement with NH and the LHA is established in the NPSs (EN-1 at 5.14.6, EN-3 at paragraphs 2.10.126 and 2.10.141-143) and is secured in the OCTMP. Any CTMP approved as a DCO Requirement will reflect any updating analysis required by the relevant consultees, and control mechanisms that address cumulative effects with Lostrigg Solar should this issue arise.

Public Accessibility

- 6.9.23 EN-3 (2.10.40) confirms that developments can ‘*affect the provision of public rights of way networks*’ and EN-1 paragraph 5.11.30 highlights that PRoW, National Trails, and other rights of access to land are important recreational facilities for example for walkers, cyclists, and horse riders.
- 6.9.24 Assessment of impact on PRoW and other recreational routes from a visual and amenity perspective are provided by Chapter 7 – Landscape and Visual, and in relation to their usability in the TS. The TS confirms the Site is not crossed by any PRoW, that it is not proposed to close or divert nearby PRoW to enable construction, and that the Proposed Development will not prevent the ongoing use of routes in the vicinity.
- 6.9.25 Beyond issues of usability, paragraph 2.10.44 of EN-3 encourages applicants to:
‘consider and maximise opportunities to facilitate enhancements to the public rights of way and the inclusion, through site layout and design of access, of new opportunities for the public to access and cross proposed solar development sites (whether via the adoption of new public rights of way or the creation of permissive paths)....’.
- 6.9.26 As set out in various parts of the ES (Chapters 3 and 8 in particular), outdoor recreational routes in the immediate area are sparse and are limited as a constraint on the Proposed Development. However, as discussed in 6.3 of the DAD and 6.5 in the Consultation Report, their

relative sparseness has presented a positive opportunity for the Proposed Development to add to the off-road walking network.

- 6.9.27 The Applicant is keen to provide greater access to members of the public, particularly to key features in which the community expressed an interest during the consultation; the pond in Area D and the Stone Circle and Cairn in Area C, as well as wildlife in the ancient woodland adjoining Area C.
- 6.9.28 The Proposed Development includes two new permissive paths, one of which is a shorter recreational loop likely of most interest to Gilgarran residents. The other runs the length of the western boundary of Area C which has wider recreational value as it links well with existing public open access land and PRoW in the vicinity. The indicative routes of these paths are identified in Figure 7.7b Permissive Paths in the OLEMP. Public access improvements would consist of the following:
- A walkable route along an existing access track off the Gilgarran Road on the boundary of Area B to the pond in Area D; and
 - A walkable connection between Gilgarran Road and Dean Cross Road on the western edge of Area C. This would also enable access to the Stone Circle and Cairn and the Dean Moor CWS.
- 6.9.29 The DAD provides background to these proposals and the OLEMP has further information on the routes and complementary green infrastructure provision such as information boards.

Transport and Access Conclusions

- 6.9.30 The Applicant has worked closely with the LHA on the topic of the construction and operational access arrangements. Transport and access issues for renewable energy development are described in LLP1 policy, which include S22 – Transport Principles, S32 – Safeguarding Amenity, also included in S19 Renewable Energy at S19(c). These policies emphasise the need to consider safety and address the potential amenity issues associated with traffic, including for renewable energy development. The TS provides the basis of the design approach and mitigation measures which will be secured in the CTMP.

- 6.9.31 The Applicant has proposed new permissive paths which enhance public access to nature in accordance with LPP1 policies S24 and DM10 and CBC policy CO6.
- 6.9.32 In summary, the Proposed Development is considered to have a negligible impact on the road network, would not unacceptably impact on highway safety, and would not cause severe cumulative effects. Nor would it undermine the availability or amenity of surrounding recreational routes but can make a positive contribution to the local network. EN-1 paragraph 5.14.21, which aligns with NPPF paragraph 116, states that:
‘The Secretary of State should only consider refusing development on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts on the road network would be severe, or it does not show how consideration has been given to the provision of adequate active public or shared transport access and provision’.
- 6.9.33 Considering paragraph 5.14.21 of NPS EN-1, the SoS should view the Proposed Development as appropriate to grant permission.

6.10 Ground Conditions

- 6.10.1 Ground conditions is an overarching topic which includes topics considered in this section of the planning appraisal and in other sections (e.g. soil resource conservation). This part of the planning appraisal focuses on the following topics that are addressed in ES Chapter 10 – Ground Conditions, and responding to the below NPS policies:
- Ground stability and contamination risk (EN-1, 5.11.17-18);
 - Mineral resources (EN-1, 5.11.19 and 5.11.28); and
 - Geological Conservation (EN-3, 2.10.156).

Ground Stability and Contamination Risk

- 6.10.2 At paragraph 5.11.17 EN-1 indicates that an applicant should ensure that *‘a site is suitable for its proposed use, taking account of ground conditions and any risks arising from land instability and contamination’*. It goes on to state that for developments on previously developed land (like parts of the Site despite its agricultural classification) applicants will need to *‘have considered the risk posed by land contamination, and where contamination is present... consider opportunities for remediation where*

possible' and this should be done through engagement with relevant bodies in the pre-application stage (5.11.18).

- 6.10.3 ES Chapter 10 provides an assessment of the likely significant effects of the Proposed Development on the environment with respect to ground conditions (stability and existing ground contamination) and identifies the potential impacts and associated effects from the disturbance of land on the Proposed Development, human health, and the environment during the construction, operations and decommissioning phases.
- 6.10.4 The potential for pre-existing land contamination is considered in the baseline assessment of ES Chapter 10. Much of the northern part of the Site (Areas A, B, and D) is a former open cast coal mine which has been restored to agricultural use. In addition, there are historic mine entries and areas of potential ground instability associated with historic mine workings located across the central and southern areas of the Site (Area B and C).
- 6.10.5 Throughout the pre-application stage, the Applicant has liaised with relevant bodies including the Mining Remediation Authority (MRA) (formerly the Coal Authority), the EA, and the Council's EHO to consider the appropriate design and mitigation measures to avoid any risks associated with these historic mining activities. The engagement which has taken place is summarised in Tables 10.1 and 10.2 of ES Chapter 10.
- 6.10.6 Additional mitigation measures are proposed and would include an intrusive ground investigation to be undertaken post-consent, as recommended within the Phase 1 GCA (ES Appendix 10.1) and described in the OCEMP. The ground investigation would investigate and characterise near-surface soils and ascertain the location of historical mine entries to inform the detailed design of the Proposed Development, with any remediation required for risks that cannot be designed out, and any further mitigation to be detailed within the CEMP.
- 6.10.7 In response to advice from the MRA, no buildings or structures (such as those associated with Work No. 2) would be located within 50m of the historic mine entries. It is considered that it may be possible to place solar

arrays or other associated development within 50m of these historic mine entries. However, to undertake any development within the exclusion areas would be subject to MRA permitting and the results of the intrusive ground investigation, and any necessary remediation or mitigation being achieved in that part of the Site. Mitigation would need to be agreed with the MRA prior to commencement, as described in the OCEMP.

Mineral Resources

- 6.10.8 Paragraph 5.11.19 of EN-1 require that applicants should put in place appropriate measures to safeguard any mineral resources and paragraph 5.11.28 requires that if a proposed development has an impact on a MSA, appropriate mitigation measures must be in place to safeguard mineral resources.
- 6.10.9 The Site is within a MSA for brick clay and within a Minerals Consultation Area (MCA), as specified in the Council's adopted MWLP. A small section of the Site (along the eastern boundary, and only under the existing public highway) also falls into a MSA for sand and gravel.
- 6.10.10 Policies SP8 and DC15 of the MWLP describe the requirements for minerals safeguarding in Cumbria. Policy DC15 indicates that within MSA, applications that do not allow for the prior extraction of minerals will only be permitted where the need for the development outweighs the need to extract the mineral, or it is demonstrated it is of no environmental value, or if the development would not prevent extraction taking place in the future.
- 6.10.11 A standalone chapter on minerals was scoped out of the ES as per Table 2.7 of ES Chapter 2 – Methodology. As part of the EIA scoping process, the Applicant met with the Council's advisor to discuss the potential impacts on mineral resources. It was agreed that the extraction of sand and gravel need not be considered in the EIA due to the limited extent of that resource within the Site (the MSA overlaps the existing Branthwaite Road which is within the DCO boundary, but not affected by any new development). With regards to the potential impact on the brick clay MSA, the Council indicated there is sufficient capacity for the production of brick clay within Cumbria. In addition, and with reference to the NPS and MWLP

policies, the Proposed Development is temporary, so access to this minerals resource would be possible in the future.

Geological Conservation

- 6.10.12 Paragraph 2.10.156 of EN-3 indicates that where developments are proposed on peat the SoS should be satisfied that the layout and construction methods are designed to minimise soil disturbance during construction and maintenance of roads, tracks, and other infrastructure.
- 6.10.13 The presence of peat has been identified within the Site. A Peat Survey Report (PSR) (ES Appendix 10.3) **[REF: 6.3]** sets out the results of the peat survey. PSR Figure 1.4 maps the confirmed locations of peat within the Site which are in Area C. This is confined to limited areas where there are also other constraints present, including watercourses. To minimise the impact on peat, the Applicant has established a buffer of 10m for the identified areas of peat when defining the Work Nos., which limit where solar PV arrays and other infrastructure can be located.
- 6.10.14 The Applicant proposes to be able to undertake limited activities in the vicinity of the peat, primarily to enable its conservation. This would include protective barriers or landscape maintenance. As a general principle, the areas of peat would be fenced and avoided during construction. Should any construction activity related to Work No. 3 need to take place within identified areas of peat during the construction phase, mitigation measures in the OCEMP and/or OSMP will be implemented.

Ground Conditions Conclusions

- 6.10.15 This section of the PS and ES Chapter 10 considers impacts from ground instability (associated with historic coal mining), safeguarding of minerals resource, and geological conservation (associated with peat).
- 6.10.16 The risks of ground instability and potential contamination which are primarily associated with historic mining will be addressed through further ground investigation to be undertaken prior to construction. The ES concludes that following the mitigation, there will be no significant effects

arising from the Proposed Development. This approach to mitigation and remediation is in line with that described in NPPF paragraphs 196-201.

- 6.10.17 With regards to mineral resources, the need to consider minerals safeguarding has been addressed within the ES, in accordance with EN-1 paragraph 5.11.19, NPPF paragraphs 222 – 227, LPP1 policy SP8 and MWLP policy DC15. residential

6.11 Environmental Health and Amenity

- 6.11.1 Effects on environmental health and amenity are addressed across this planning appraisal and ES chapters where appropriate. This section focuses on select topics that are scoped-out of the ES as independent chapters by virtue of not being associated with significant effects. These are likely to be of interest to similar stakeholders, and all relate to broader EN-1 topics such as Land Use in 5.11.15-16, as well as Section 4.15 – Common Law Nuisance and Statutory Nuisance which requires mitigation of possible sources of statutory nuisance under section 79(1) of the Environmental Protection Act (EPA) 1990⁵⁷. Paragraph 4.15.5 requires:

‘At the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the EPA 1990 and how they may be mitigated or limited should be identified by the applicant so that appropriate requirements can be included in any subsequent order granting development consent (see Section 5.7 on dust, odour, artificial light etc. and Section 5.12 on noise and vibration).’ (4.15.5).

- 6.11.2 Appraisal of the Proposed Development against the possible sources of nuisance under section 79(1) of the EPA is set out within the Statutory Nuisance Statement (SNS) [REF 5.3], which considers the matters of general Site condition, air quality, artificial light, and noise and vibration. The SNS concludes that the embedded design and additional mitigation measures identified in the ES will prevent impacts which have the potential to result in statutory nuisance.

- 6.11.3 This part of the planning appraisal focuses on the following topics:
- Air Quality and Emissions (EN-1, Sections 5.2 and 5.7);
 - Light Pollution (EN-1, Sections 5.7 and 5.10 and EN-3, paragraphs 2.10.47-48, 102–106, 134-136, and 158-159);

⁵⁷ Environmental Protection Act 1990 c. 43.

- Noise and Vibration (EN-1, Section 5.12);
- Resource and Waste Management (EN-1, Section 5.15); and
- Human Health (EN-1, Section 4).

Air Quality and Emissions

- 6.11.4 At paragraph 5.2.1, EN-1 highlights that energy infrastructure can be associated with adverse effects on air quality across construction, operation, and decommissioning. Paragraph 5.2.8 requires an Applicant to assess adverse effects on air quality where such effects are anticipated.
- 6.11.5 Unlike some forms of renewable energy detailed in EN-3 (e.g. biomass and combined heat and power (CHP)), solar farms are not intrinsically associated with operational air quality and emissions effects; they generate passively without a fuel source or emissions from energy production. Where solar farms may be associated with emissions is in the construction and decommissioning phases. For this appraisal, discussion focuses on construction effects as decommissioning effects would not be greater than these, and construction benefit from a more mature suite of control documents to avoid or mitigate air quality effects.
- 6.11.6 As per Table 2.7 of ES Chapter 2, the Planning Inspectorate agreed in their Scoping Opinion to scope out air quality as a standalone chapter provided that sufficient information on dust sensitive receptors and dust suppression techniques is provided, and the ES demonstrates construction and operational traffic movements will not exceed the Institute of Air Quality Management (IAQM) criteria.
- 6.11.7 As set out in OCEMP Section 8, which provides controls for air pollution effects, air quality effects in the construction phase may be associated with vehicles tracking on and out of the Site, the transport of materials and equipment around the Site, excavation for cables and structure foundations, the construction of structures, the use of generators, and the formation and use of access tracks without bound (paved) surfacing. These and other associated activities have the potential to have air quality impacts arising from dirt and dust, and vehicle and generator emissions. However, the extent of these effects are only those which are associated

with any solar farm development, and there is certainty that these can be effectively controlled via measures in the CEMP and CTMP.

- 6.11.8 In relation to EN-1 5.2.16-19, the Site itself is not under any air quality management designations such as Air Quality Management Area (AQMA) and there are limited sensitive receptors in close proximity to the Site, such as residential dwellings and public footpaths. Therefore, a Construction Dust Risk Assessment has not been undertaken. This approach was agreed with the Council's EHO. Mitigation measures to reduce the effect of construction dust, including dust suppression techniques and using low-emission mobile plant, are summarised in ES Chapter 5 and outlined within the OCEMP.
- 6.11.9 In relation to vehicle emissions, the number of anticipated movements during construction (20 HGV Average Annual Daily Traffic ('AADT')) and operation (1-2 AADT vehicle movements) are below the threshold criteria requiring an assessment of significant effects in the 'Land Use Planning and Development Control: Planning for Air Quality'⁵⁸ guidance (IAQM, 2017). Further, the OCTMP include measures to ensure vehicle emissions impacts on receptors are minimised.
- 6.11.10 The Proposed Development is not a form of energy generation typically associated with adverse air pollution effects from dust and emissions. There is a potential for adverse air quality impacts, but these are readily mitigated via standard construction best practice including adherence to the Construction, Design and Management (CDM) Regulations⁵⁹ regime and compliance with measures in place as mitigation for other effects. This includes things such as wheel washing to prevent safety risk to the public highway, and the soil resource management measures as set out in the OSMP. The Proposed Development is compliant with the NPS as well as with paragraph 199 of the NPPF and LPP1 policy S36.

⁵⁸ Institute of Air Quality Management. 2017. Land-Use Planning & Development Control: Planning for Air Quality.

⁵⁹ The Construction (Design and Management) Regulations 2015. SI 2015/51.

Light Pollution

- 6.11.11 EN-1 raises light pollution effects in relation to landscape in paragraph, 5.10.21 which advises the ES '*should include light pollution effects, including on dark skies, local amenity, and nature conservation*'. This is taken forward for specific technologies in EN-3 which provides more detail on light pollution effects, particularly those associated with glint and glare.
- 6.11.12 As per Table 2.7 of ES Chapter 2, the Planning Inspectorate agreed in their Scoping Opinion to scope out lighting and glint and glare as standalone ES chapter topics but recommended that the ES include a description of the Proposed Development's lighting strategy and potential for effects across all phases for human and environmental receptors, including intermittent lighting such as that associated with security measures. The Scoping Opinion also confirms glint and glare may be scoped out on the basis that an assessment be appended to the ES and used to inform the landscape and visual chapter.

Light Pollution - General

- 6.11.13 With respect to general lighting risks EN-3 (paragraph 2.10.47) advises applicants to assess the visual impact of security measures such as CCTV and site lighting as a light pollution source. This type of lighting is discussed across the ES, but particularly assessed in Chapter 7 – Landscape and Visual, and more narrowly in Chapter 8 – Biodiversity.
- 6.11.14 The ES establishes that lighting will be part of all phases of the Proposed Development and is controlled by a sensitive lighting strategy in the management plans for the relevant phase. The two types of lighting on the Site will be ad hoc emergency lighting which may be needed for a short-term specific task, and lighting which is permanently available on Site.
- 6.11.15 The ES confirms that any permanently available lighting would be only available for use and not permanently lit. This would be limited to motion or manually activated lighting which is on a timer and is cowed (down-lighting) not directed at sensitive receptors such as habitat corridors. Temporary lighting is lighting which would be brought to Site for a specific purpose and/or worker safety if attending in hours of darkness. Further

detail on the sensitive lighting strategy is found in the OCEMP (ES Appendix 5.1), OOMP (ES Appendix 3.1), and OLEMP (ES Appendix 7.7).

- 6.11.16 The control documents support the prevention of light pollution risks from the use of temporary lighting or from permanently available lighting. Through these management plans alignment with EN-1, 5.10.21 and EN-3, 2.10.47-48 is secured. This also provides compliance with NPPF paragraph 198 (c), and LPP1 S32 – Safeguarding Amenity.

Light Pollution - Glint and Glare

- 6.11.17 Glint and glare policy is found across EN-3 at paragraphs 2.10.102-106 in relation to potential impacts, at 2.10.134-136 in relation to mitigation, and 2.10.158-159 in relation to technical considerations for SoS decision making. This section of the PS sets out the nature of the issue and its assessment (as per 2.10.102-106) and of the conclusions for the Site as they relate to mitigation requirements (2.10.134-136). It confirms that the Glint and Glare Assessment (ES Appendix 7.9) **[REF: 6.3]** supports the SoS decision making (2.10.158-159) for the assessment of effects on sensitive receptors which can be entirely prevented through good design.
- 6.11.18 Solar panels are made up of silicon based photovoltaic cells that are encased in a glass covering. Glass does not have a true specular reflection but does reflect a certain magnitude of light. Reflection of sunlight from PV panels is contrary to solar energy production. This is acknowledged by EN-3 which notes that solar panels *‘are designed to absorb, not reflect, irradiation’* (2.10.158).
- 6.11.19 The definition of glint and glare can vary. The definition used in the assessment is aligned with that of EN-3 at paragraph 2.10.102:
- **Glint** – *‘a momentary flash of bright light typically received by moving receptors or from moving reflectors’*; and
 - **Glare** – *‘a continuous source of bright light typically received by static receptors or from large reflective surfaces’*.
- 6.11.20 In context, glint will be witnessed by moderate to fast moving receptors whilst glare would be encountered by static or slow-moving receptors with

respect to a reflector. Within the Glint and Glare Assessment the term ‘*solar reflection*’ is used to refer to both reflection types, i.e. glint and glare.

- 6.11.21 The assessment for the Proposed Development provides an analysis of the possible effects on surrounding road safety, aviation receptors, and residential amenity. The assessment has been made by a UK leading expert to an established methodology. It considers all relevant receptors within a defined study area, then rules out those receptors for which solar reflections are not geometrically possible. It then goes on to consider whether existing characteristic or features (e.g. vegetation, topography, the built environment) would prevent effects, and then establishes the need for any mitigation requirements where solar reflections are not predicted to be sufficiently screened, and impacts are possible. The scope of the assessment is in accordance with EN-3, 2.10.103-104.
- 6.11.22 With respect to aviation receptors EN-3, 2.10.159 confirms that:
‘Whilst there is some evidence that glint and glare from solar farms can be experienced by [this receptor] ... there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the [SoS] is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms.’
- 6.11.23 The Glint and Glare Assessment identifies the Gilgarran Airfield approximately 345m west of the Site as a relevant aviation receptor. This is an unlicensed general aviation aerodrome (i.e., not a certified and/or licensed aerodrome) with a grass runway and is considered to be active temporarily through the year (i.e. seasonally) for a maximum of 28 days of the year. There are no published details or record of this aerodrome, reiterating that the license (if any) would have lapsed.
- 6.11.24 The assessment concludes that there may be instances of glare affecting Gilgarran Airfield, but that these are operationally accommodatable. A low impact is predicted, and mitigation is not recommended. This is in part because operational measures used by pilots to mitigate the effects of direct sunlight will adequately mitigate the effects of solar glare from the panels. However, the glare modelling will be shared with the airfield operator so that airfield users can be made aware of the outcomes.

- 6.11.25 The Glint and Glare Assessment goes on to consider national, regional, and local road receptors (motorists or other public road network users) within a 1km study area of the Site with a potential for views of and effects from Work No. 1. This rules out the entirety of the SRN and the Branthwaite Road north of the Site, and a number of other portions of the LRN in closer proximity but screened by areas of woodland.
- 6.11.26 The assessment finds that reflections are geometrically possible towards some sections of the Branthwaite Edge Road, the Gilgarran Road, and of other unnamed local roads. However, screening in the form of existing vegetation to be maintained and enhanced, and intervening terrain is predicted to significantly obstruct views of reflecting panels, such that solar reflections are not predicted to be experienced by road users. No impact is predicted, and mitigation is not required.
- 6.11.27 For dwelling receptors, the Glint and Glare Assessment considered all receptors within a 1km study area with potential for views of Work No. 1. It confirms that solar reflections are geometrically possible towards 33 of the 35 assessed dwelling receptors but that intervening screening means no solar reflections will be experienced in practice and mitigation is not required. For the remaining three receptors it finds that solar reflections are geometrically possible for more than three months per year, but less than 60 minutes on any given day, with screening to partially obstruct views of reflecting panels with marginal views considered possible.
- 6.11.28 The identified screening is predicted to reduce effects to less than three months per year, in addition to effects coinciding with the sun. This means the effect is possible but would be experienced for less than an hour a day for less than three months, and could only be experienced while simultaneously looking at the sun.
- 6.11.29 Some aspects of mitigation are designed-in and secured via the DPD which requires matte metal mounting frameworks and solar panel frames as well as a smooth glass façade with anti-reflecting coating. This complies with EN-3 paragraphs 2.10.106 and 2.10.134.

- 6.11.30 All ground-based receptors (dwellings and roads) assessed as being geometrically possible to experience effects also rely in part on screening, which is anticipated at EN-3, 2.10.135. This is associated with existing screening factors that cannot or are unlikely to change, such as topography, the existing (off-site) built environment, and large areas of woodland. However, it will also rely on vegetation within the Order Limits such as hedgerows, and the enhancement and the management of landscape structure features as secured by the OLEMP.
- 6.11.31 Recognising that the natural environment could change between now and the construction phase, and that the Glint and Glare Assessment itself is based on worst case parameters for the extent of Work No. 1, further mitigation is secured via management plans.
- 6.11.32 This includes a commitment to re-model the glint and glare effects based on the detailed design and updating environmental assessments such as the tree survey, to assess any final mitigation requirements on this basis, and to ensure mitigation is incorporated into the Proposed Development's planting and management regime.
- 6.11.33 The outline management plans also secure any temporary measures that may be required (such as mesh barriers) between the time of installation and the time it takes for new/improved planting relied on for screening to sufficiently mature.
- 6.11.34 The Glint and Glare Assessment and mitigation secured via Requirements confirm that the Proposed Development is acceptable in visual amenity terms with respect to EN-3 commentary on glint and glare effects. Given the lack of impact of glint and glare as a result of the Proposed Development, the Proposed Development also complies with NPPF paragraph 198(c), and the LPP1 policy for safeguarding amenity (S32).

Noise and Vibration

- 6.11.35 As with other issues of environmental amenity, noise and vibration is an overarching topic reflected across the EN-1 as a matter relevant to a variety of topics including good design (4.7), pollution control (4.12), the

historic environment (5.9), and landscape and visual (5.10). This is mirrored in the EN-3 at paragraph 2.5.2 which requires applicants to demonstrate good design which mitigates environmental effects like noise. Beyond this, EN-3 provides no further guidance on noise and vibration in relation to solar farms other than as an effect of construction. EN-5 further addresses potential noise effects from substations, which are dependent on transformer specifications, stating at 2.9.39 that standard methods of assessment using the British Standard principles are satisfactory.

- 6.11.36 EN-1 provides direct guidance for consideration of noise relevant to these topics in section 5.12. Paragraph 5.12.6 of EN-1 requires a noise assessment to be prepared where noise and vibration impacts are likely to arise, and sets out the methodology and scope for such an assessment. It also advises at 5.12.13 that *‘Any such mitigation measures should take account of the NPPF or any successor to it and the [PPG⁶⁰] on Noise.’*

- 6.11.37 As per Table 2.7 of ES Chapter 2, the Planning Inspectorate agreed in their Scoping Opinion to scope out noise and vibration as a standalone chapter topic, subject to the provision of a Noise and Vibration Impact Assessment (NIA). An NIA **[REF: 6.3]** has been prepared that reflects the requirements of EN-1, 5.12.6 and the PPG. and is appended to the ES (Appendix 2.6).

- 6.11.38 EN-1, paragraph 5.12.9 advises that *‘information on assessment of particular noise sources may be contained in the technology specific NPSs’*. As suggested by there being no specific noise concerns for solar farms in EN-3 (in contrast to the detail on glint and glare effects), solar generating stations are not typically associated with significant noise effects. Noise effects for the Proposed Development are limited to the HVAC systems of the PCS Units which are dispersed across a Site in Work No.1 and with aspects of Work No. 2 Grid Connection Infrastructure; EN-5, 2.9.37 highlights that substations have the potential to result in audible effects, and 2.3.38 indicates that transformers generate a low frequency hum.

⁶⁰ GOV.UK. 2014. Noise. Available from: <https://www.gov.uk/guidance/noise--2>. Accessed February 2025.

- 6.11.39 The Proposed Development is situated in a relatively sparsely populated rural area; there are 20 dwellings and 4 commercial buildings within 500m of the Site, and no dwellings within the Order Limits. Of these, the NIA identifies 10 dwellings as potential Noise Sensitive Receptors (NSR). The sparse population and size of the Site support the avoidance/mitigation of construction and operational noise and vibration effects.
- 6.11.40 EN-1, 5.12.6 indicates that all reasonable steps should be taken to mitigate noise effects, and 5.2.14 describes mitigation measures including through providing distance between source and receptors. EN-5 indicates that applicants should carefully consider the location of substations during the site selection process. How this topic has influenced design is set out in the DAD.
- 6.11.41 The detail of the approach to mitigation of noise effects is secured through additional noise modelling of the detailed design in respect of the locations of the PCS Units (within Work No.1). This will ensure that the SOAEL (Significant Observed Adverse Effect Level) is not exceeded, including through careful siting of equipment and other attenuation if required.
- 6.11.42 With regards to construction noise and vibration, the Planning Inspectorate advised in the Scoping Opinion, that further information would be needed to justify that construction noise would not give rise to significant effects. Further information on construction techniques, locations, routes, machinery, and duration is provided in ES Chapter 5 - Construction and Decommissioning Methodology and Phasing, as well as the OCEMP (Appendix 5.1) and the OCTMP (Appendix 5.2) which rules out the likelihood of significant effects relating to construction noise occurring.
- 6.11.43 The Proposed Development is therefore not considered to lead to significant noise and vibration impacts and the appropriate mitigation has been carried forwards into the suite of management plans and is embedded within the design. As such the Proposed Development complies with the policies of the EN-1 paragraphs 5.12.5-16, EN-3 paragraph 2.5.2, and EN-5 paragraphs 2.9.37-39. It is also in alignment with LPP1 S32.

Resource and Waste Management

- 6.11.44 Although related to a number of topics for environmental management, resource and waste management is specifically discussed within EN-1 at section 5.15. This establishes an expectation that an applicant will have regard for sustainability and the waste hierarchy (as per 5.15.1-3).
- 6.11.45 As per Table 2.7 of ES Chapter 2, the Planning Inspectorate agreed in their Scoping Opinion to scope out recycling and waste management as an independent chapter and accept that provision can be made through management plans. The Planning Inspectorate also recommend particular attention be paid to recycling in relation to the decommissioning phase.
- 6.11.46 Waste is discussed in various chapters but particularly in ES Chapter 5 – Construction and Decommissioning which includes the OCEMP. Further detail on waste management is provided by the relevant management plans discussed herein, which demonstrate how the Applicant has considered how waste will be managed during the lifetime of the Proposed Development in accordance with Section 5.15 of EN-1.
- 6.11.47 For the construction phase the majority of waste management and recycling measures are provided by the OCEMP. Therein section 9 is dedicated to ‘Materials Handling and Waste Management’ and section 10 ‘Pollution Prevention’ also relates to the topic. The OCEMP sets out mitigation measures to minimise waste and enable safe and sustainable construction practices. While the OCEMP will be the primary controlling document for construction it is supported by provisions in the OCTMP aimed to reduce consumption (and thereby both traffic and waste).
- 6.11.48 For the operational phase, waste management is provided by the OLEMP and the OOMP. The OLEMP sets out requirements for the handling of arisings from vegetation management which also considers the waste hierarchy (e.g. the re-use of dead wood for insect habitat piles or promoting the possibility of grass arising providing hay as an alternative to off-Site disposal). Other aspects of operational waste management are in the OOMP which requires waste management best practice be applied to any operations and maintenance activities that could give rise to waste.

- 6.11.49 The Applicant's approach to the decommissioning phase in the FDMP is to provide a framework for a future DMP document suite that will be the equivalent of the construction phase documents. The DMP suite will be substantially in accordance with the framework. A core commitment of the FDMP which must be carried through into the future document suite is that the DMP will be expected to demonstrate that re-use and recycling are prioritised and that no materials which can be re-used or recycled are disposed of in any other way without a compelling justification.
- 6.11.50 The Proposed Development is not of a nature that utilises or generates waste and which might be subject to the EA's Environmental Permitting regime such that EN-1 4.12 would apply. Controls provided by the outline management plans, coupled with best practice embedded through other regulatory regimes (such as the Health and Safety Executive) (as per EN-1, 4.13.1) will ensure that the Proposed Development is implemented, managed, and decommissioned in an environmentally responsible manner. This demonstrates that the Proposed Development is compliant with EN-1 Section 5.12 as well as supporting the sustainability objectives of NPPF paragraph 8(c) and the requirements of LPP1 policies S2 Sustainable Development Principles and DM12 Sustainable Construction.

Human Health

- 6.11.51 EN-1 Section 4.4 deals with the topic of human health. Paragraph 4.4.4 states, '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.*' Paragraph 4.4.6 goes on to advise that 'opportunities should be taken to mitigate indirect impacts, by promoting local improvements to encourage health and wellbeing...'.
- 6.11.52 There are no technology specific considerations set out for solar PV with respect to human health in EN-3. As per ES Chapter 2 – Methodology, this topic has been scoped out of the ES and is not included as a standalone

chapter. Further, within the Council's guidance, there is no set requirement to conduct a Health Impact Assessment (HIA) for solar development, nor a methodology to do so. However, it is recognised that there may be potential for impacts to human health to occur at any phase of the Proposed Development.

- 6.11.53 Human health is inherently considered within the ES technical chapters, for example through the assessment of human health in relation to ground conditions (such as potential contamination or stability hazards). It was agreed with the Council that consideration of health within the ES should be summarised within ES Chapter 2 – EIA Methodology. Section 2.9 of Chapter 2 discusses how the potential effects to human health from the Proposed Development have been considered throughout the ES and finds that embedded and additional mitigation measures will ensure that there is no significant risk to human health.
- 6.11.54 ES Chapter 2 confirms that appropriate measures are embedded into the design of the Proposed Development and into the various management plans that are proposed to be secured via the DCO, which will seek to avoid and/or reduce potential significant effects relating to human health.
- 6.11.55 Mitigation of risks to health during the construction phases would primarily be addressed through the implementation of the measures in OCEMP. This would be in addition to the requirements of the Health and Safety Executive (HSE)/CDM regime and mitigate and control aspects of construction that have the potential to negatively impact on human health such as air quality, pollution, and noise. In addition, human health has been considered in controls in relation to road safety and vehicle routing provided by the OCTMP.
- 6.11.56 Benefits to human health are supported by the creation of two permissive paths in accordance with 4.4.6 of EN-1, in conjunction with the additional planting which is proposed through the LSP (ES Figure 7.6.1-7.6.5).
- 6.11.57 Minimising health impacts has been addressed within each ES technical chapter as relevant, and the measures proposed within the relevant

management plans are considered by the proposal of permissive paths. Therefore, the Proposed Development complies with EN-1 Section 4.4 and LPP1 policy S32.

Environmental Health and Amenity Conclusions

- 6.11.58 This part of the PS gives an overview of overarching environmental health and amenity topics that are scoped-out of the ES as standalone topics, but which are addressed across the ES. This includes via ES Chapters 2 and 5 and associated technical chapters and their appendices including the NIA, the Glint and Glare Assessment, and the suite of management plans. Alongside the SNS, this ensures a thorough consideration of possible noise and vibration, light pollution, air quality, and human health effects. The Proposed Development is therefore compliant with EN-1 sections 4, 5.2, 5.7, 5.10, 5.12, and 5.15, and EN-3 paragraphs 2.10.47-48, 102–106, 134-136, and 158-159.

6.12 Sustainable Development

Overview

- 6.12.1 Sustainable development, described in Paragraphs 7 and 8 of the NPPF, has three main objectives '*(social, economic, and environmental) in order to meet the need of today's society without compromising the ability of future generations to do the same.*' With relevance to energy infrastructure, the NPPF paragraph 11, Presumption in Favour of Sustainable Development, indicates that decision takers should consider the 'effective use of land' and 'securing well-designed places'.
- 6.12.2 The Government's objectives for infrastructure include contributing to sustainable development. Paragraph 2.6.2 of EN-1 indicates sustainable development is relevant not just in terms of addressing climate change, but because the way energy infrastructure is deployed affects the wellbeing of the environment, society and the economy, for both current and future generations.
- 6.12.3 This section draws together the elements of sustainable development that are not provided for in topics above, and which are considered within the

assessments submitted with this application, under the headings of Socio-Economics and Health, Good Design, and Climate Change.

Socio-Economics

- 6.12.4 Section 13 of NPS EN-1 (specifically paragraph 5.13.2) recognises that energy infrastructure can have socio-economic impacts on a locality or region and that where such impacts are likely to occur, an assessment should be included in the ES.
- 6.12.5 For the PEIR a socio-economics chapter was provided. No significant effects were identified that related directly to socioeconomics. The only significant effects that were identified related to landscape and visual amenity and climate change and are therefore covered in ES Chapters 7 and 9. Therefore, socioeconomics was scoped out of the ES as set out in Section 2.9 of ES Chapter 2 **[REF: 6.1]**. The socioeconomics PEIR chapter is appended to the ES at Appendix 2.7 **[REF: 6.3]**.
- 6.12.6 As set out in EN-1 paragraph 5.13.3, the Applicant has engaged with the Council, relevant parish councils, and other stakeholders to understand local issues and opportunities, and has positively engaged with local community groups, as set out within the Consultation Report.
- 6.12.7 Given that potential socio-economic impacts have been assessed where relevant within the ES, and no significant effects related directly to this topic were identified in the PEIR chapter, the Proposed Development is compliant with Paragraphs 5.13.2-3 of EN-1 and LPP1 S20.

Good Design

- 6.12.8 NPS EN-1 Section 4.7 describes the principles for good design for energy infrastructure. Paragraph 4.7.1 advises, 'high quality and inclusive design goes far beyond aesthetic considerations. The functionality of an object – be it a building or other type of infrastructure, is equally important.'

- 6.12.9 Paragraph 4.7.2 of EN-1 states:

'Applying good design to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation, matched by an appearance that demonstrates good aesthetic as far as possible. It

is acknowledged, however that the nature of energy infrastructure development will often limit the extent to which it can contribute to the enhancement of the quality of the area’.

- 6.12.10 EN-1 paragraph 4.7.3 establishes good design as ‘*a means by which many policy objectives in the NPSs can be met, for example the impact sections show how good design, in terms of siting and use of appropriate technologies, can help mitigate adverse impacts such as noise.*’
- 6.12.11 Paragraph 4.7.6 acknowledges that whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting. EN-1 also identifies the need for applicants to provide details in their application of how the design process was conducted and how the design has evolved.
- 6.12.12 Paragraphs 2.10.70 to 2.10.71 of EN-3 recognise the need for flexibility in design for solar NSIPs and indicating that flexibility may be needed on the type, number, and dimensions of panels, and layout and spacing, and that applicants should describe the range of options it is seeking consent for.
- 6.12.13 The design approach to securing good design, as defined by the NPS and relevant guidance from the Planning Inspectorate⁶¹ and NIC on ‘design principles for national infrastructure’⁶² and ‘project level design principles’⁶³, and Council policies LPP1 S4 and DM14 which relate to ensuring design is functional and integrated within surroundings is set out within the Design Approach Document (DAD). Guidance recommends establishing a hierarchy of a project vision which informs design principles, ensuring that good design is implemented through each small decision within the Proposed Development. The Project Design Principles (DPs) have been established to accord with the NPS definition of good design and the NIC principles of climate, place, people, and value, and are set out within section 4 of the DAD. Paragraph 4.7.2 of EN-1 is reflected through DP C.3 which aims to ‘*support sustainable development through good*

⁶¹ The Planning Inspectorate. October 2024. Nationally Significant Infrastructure Projects: Advice on Good Design.

⁶² National Infrastructure Commission. Design Principles for National Infrastructure.

⁶³ National Infrastructure Commission. 2024. Project Level Design Principles.

design that makes efficient use of land and ensures the Proposed Development is adaptable and resilient in the face of a changing climate’.

- 6.12.14 The importance of designing a development which is sensitive to place has been carried across through multiple stages of research and design iterations, and is reflected through DPs PE.1, in minimising impacts on health and amenity, PE.2/PL.3 in enhancing access to the Site’s natural environment and cultural heritage while minimising impacts on sensitive receptors, and V.3, in adding value and diversifying the local rural economy.

- 6.12.15 As per paragraphs 2.10.70-71 of EN-3, flexibility has been secured within the Works Plans which adopt the principle of the ‘Rochdale Envelope’ to ensure that the maximum parameters and realistic worst-case have been assessed. As described within Section 5.4 of the DAD, each stage of the design evolution, including the initial site selection has been defined by ensuring the Order Limits have the flexibility to accommodate the infrastructure in a way which is sensitive to the constraints and opportunities of the Site. This flexibility is also secured through the DPD, which establishes the detailed Design Parameters which control the scale and appearance of the Proposed Development.

- 6.12.16 4.7.2 of EN-1 recognises that good aesthetics can be difficult to achieve for energy infrastructure. The visual appearance of components of infrastructure, and the sensitive siting of infrastructure has been considered to ensure the Proposed Development has minimal environmental impacts. This process has been iterative, informed by the conclusions of the environmental assessment and consultation, and is explained within the design evolution section 5 of the DAD. Section 6 of the DAD further summarises how the principles of good design, have informed the final proposals, as set out within each section organised by environmental themes.

- 6.12.17 In summary, good design has been implemented through a governance hierarchy of project vision, DPs, and effective co-ordination, and research. The DAD, DPD, and Works Plans reflect policies of EN-1 paragraphs

4.7.1-8, EN-3 paragraphs, 2.10.70-71 and LPP1 S4 and DM14, as well as national guidance from the Planning Inspectorate and the NIC.

Climate Change

- 6.12.18 Section 4.10 of EN-1 indicates how new energy infrastructure development should be adaptable to climate change. Section 5.3 sets out the need for new development to minimise GHG emissions.
- 6.12.19 This topic is also referenced in other sections of EN-1. Section 5.4 covers biodiversity and geological conservation, noting that this can be negatively impacted by climate change. Sections 5.6 and 5.8 also consider climate related effects on coastal change and flood risk respectively, and how development should consider and respond to that risk.
- 6.12.20 The Proposed Development will support the UK's net zero target by generating large-scale, low carbon electricity which could be operational by 2030. In addition, the Proposed Development will support the Council's efforts to make Cumbria Carbon Neutral by 2037.
- 6.12.21 ES Chapter 9 – Climate Change **[REF: 6.1]** reports on the likely significant effects of the Proposed Development on the environment with respect to climate change resulting from the impact of the Proposed Development on climate change (for example, the nature and magnitude of GHG emissions) and the vulnerability of the Proposed Development to climate change. In preparing this chapter, IEMA guidance has been considered.
- 6.12.22 To reduce the effects of the Proposed Development on climate change, the OCTMP and the OCEMP set out additional mitigation measures that will support minimising emissions from construction vehicles and construction activities. Specific embedded measures have not been proposed as measures distinct from those proposed to control pollution and traffic effects as set out in sections 6.9 and 6.11 of this PS.
- 6.12.23 As per Chapter 9 section 1.5, given the inherent nature of the Proposed Development as a renewable energy generating station, embedded mitigation measures during operation are not considered necessary. No

significant adverse residual effects on climate change would arise from any phase of the Proposed Development.

- 6.12.24 At a local level (within the Council), the operation of the Proposed Development will result in a major beneficial effect due to displacing carbon emissions through renewable energy generation; this is a significant beneficial effect. At the national level, this effect is considered minor which is not significant.

- 6.12.25 For the projected energy mix for 2027, which includes fossil fuels and renewable sources, carbon savings of approximately 8,986.03 tCO₂e per annum are anticipated. This is a saving of approximately 359,441.2 tCO₂e over the 40-year operational lifespan of the Proposed Development, or 1,340,902.8 tCO₂e if displacing only fossil fuel sources, as set out in ES Chapter 9.

- 6.12.26 A climate change risk assessment of the Proposed Development has been undertaken which factors in the proposed embedded mitigation for the Proposed Development.

- 6.12.27 Additional mitigation measures set out in the OOMP **[REF: 6.3]**, OLEMP **[REF: 6.3]**, and the ODS **[REF: 6.3]** will ensure and support the resilience of the Proposed Development to climate change over its operational lifetime. The Proposed Development is considered to be resilient to projected climate change; no significant residual effects are reported.

- 6.12.28 The Proposed Development delivers a significant benefit to addressing climate change through delivering clean renewable energy, and has been designed to accommodate, and be resilient to future climate change. This ensures compliance with the purpose of EN-1 to deliver the CNP for renewable energy infrastructure, and sections 4.10 and 5.3 of EN-1.

Sustainable Development Conclusions

- 6.12.29 The Proposed Development comprises 'sustainable development' as described within Paragraphs 7 and 8 of the NPPF. The principles of sustainability in making efficient use of land, minimising environmental impact, and embedding climate resilience and inherently addressing

climate change through the generation of renewable energy, are reflected throughout the application and this PS analysis. This includes within the Applicant's vision and DPs described in the DAD, which have informed project decision-making and ensure compliance with paragraphs 5.13.1-2 and sections 4.7, 4.10, 5.3, and 5.4 of EN-1, paragraphs 2.10.70-71, and LPP1 S4, S20, and DM14.

7 Conclusions and Planning Balance

- 7.1.1 The SoS is directed under the PA 2008 to determine the application for the Proposed Development with regard to the relevant NPSs, the Local Impact Report, matters prescribed in relation to the Proposed Development, and any other matters regarded by the SoS as important and relevant.
- 7.1.2 This PS demonstrates that the Proposed Development is in accordance with EN-1, EN-3, and EN-5. Paragraph 4.1.3 of EN-1 describes that there is a presumption in favour of granting consent for energy NSIPs. Furthermore, paragraph 3.3.63 states there is a presumption that the urgent need for CNP infrastructure, which includes solar, will *‘in general outweigh any other residual impacts not capable of being addressed by application of the mitigation hierarchy’*.
- 7.1.3 For the overall planning balance this PS establishes a compelling case, which is grounded in responding to the CNP need for such development, for how the Proposed Development and the benefits it will bring respond to that need. In addition to supporting national and local policies, the Proposed Development will increase energy security, reliability, and affordability of energy supply, benefiting both the local and national electricity network. Key strategic benefits can be summarised as follows:
- Energy Security – the Proposed Development will reduce the UK’s vulnerability to international energy supply and price shocks by increasing domestic energy production.
 - Reliability – the Proposed Development will provide a significant and reliable energy output.
 - Affordability – solar is a low-cost type of energy generation, and will decrease reliance on more expensive forms of energy generation.
- 7.1.4 In addition to these strategic benefits, the Proposed Development will also feature extensive ecological and landscape (green/blue infrastructure) enhancements which will bring about a substantial biodiversity net gain, a net environmental gain, and water quality betterment. The new permissive paths which will be integrated into the green infrastructure proposals will also provide health and wellbeing benefits to local residents.

- 7.1.5 The planning appraisal provided within this PS demonstrates that the need for and benefits of the Proposed Development are strongly supported by national and local planning policy. In addition, the PS demonstrates how the Proposed Development responds positively to relevant national and local planning policies through its approach to good design, avoiding sensitive areas and limiting adverse impacts where practicable.
- 7.1.6 In accordance with the provisions of the NPSs, it is concluded that the limited residual effects of the Proposed Development (see ES Ch. 11 – Cumulative Effects and Summary) do not outweigh the substantial benefits, and do not represent an unacceptable risk that would negate the presumption in favour of consent for this CNP infrastructure. The Proposed Development would deliver greater benefits than adverse effects, and would contribute to addressing the urgent national need for renewable energy to reduce the carbon emissions associated with power generation. There is a clear and compelling case for the application to be granted.
- 7.1.7 On this basis, the Applicant believes there is a clear and compelling case that development consent should be granted.