Proposed Solar PV Development

Byers Gill Solar
EN010139

7.1 Planning Statement

Planning Act 2008

APFP Regulation 5(2)(q)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

Volume 7

February 2024

Revision C01

RWE
14 Bird Street
London
W1U 1BU
United Kingdom
www. rwe.com

Table of Contents

Table of Tables

1. Introduction

1.1. Purpose of this document

1.1.1. This Planning Statement has been prepared to accompany a Development Consent Order (DCO) application by RWE (the Applicant) for Byers Gill Solar (the Proposed Development). This Planning Statement is provided as an application document as defined by Regulation 5(q) – "*any other documents considered necessary to support the application*" of the Infrastructure Planning (Applications: Prescribed Forms and Procedures) Regulations 2009 (the APFP Regulations).

1.1.2. The purpose of this document is to consider the overall case for granting consent for the Proposed Development, taking into account its compliance with relevant national and local planning policy, the need for the project and other relevant considerations such as additional enhancements or benefits it would provide. In doing so, the Planning Statement seeks to assist the Examining Authority (ExA) and the Secretary of State (SoS) in applying the provisions of the Planning Act 2008 (the Act).

1.1.3. This document is accompanied by the Policy Compliance Document (PCD) at Appendix A (Document Reference 7.1.1), which provides a detailed account of the compliance of the Proposed Development with national and local planning policy. This Planning Statement takes into account the assessment of the PCD in setting out the overall case for the Proposed Development.

1.2. The Applicant

1.2.1. RWE is a leading solar and battery energy storage developer with one of the largest development pipelines in the UK and a leading supplier of renewable energies globally. RWE recently acquired JBM Solar (the Applicant) which is now known as RWE Renewables UK Solar And Storage Limited. The highly experienced JBM Solar team are now part of RWE and have been developing projects in the UK since 2012, achieving consent for projects delivering over 1.2 Gigawatt (GW) of generating capacity across the UK and Ireland.

1.2.2. RWE is currently developing a pipeline of solar and solar with storage projects with a potential generating capacity in excess of 4GW in the UK by 2025. In addition to the 800MW consented in the UK in the last 24 months, RWE has an additional 350MW already in the planning system across 11 sites and a programme to submit in excess of 500MW in the coming year.

1.3. Requirement for a Development Consent Order

1.3.1. The Proposed Development is a Nationally Significant Infrastructure Project (NSIP) under Section 14(1)(a) and Section 15(2) of the Act as an onshore generating station in England with a capacity of more than 50MW.

1.3.2. As an NSIP, the Applicant is required to make an application for DCO before it can lawfully construct or operate the Proposed Development. The Act provides that the SoS is responsible for determining the application for development consent. The Planning Inspectorate (PINS), on behalf of the SoS, has responsibility for administering the examination of DCO applications and supporting the examining authority that will be appointed to make a recommendation to the SoS as to whether to grant development consent. If granted by the SoS, the DCO will provide the necessary authorisation to allow the Proposed Development to be constructed and operated.

1.3.3. The relevant SoS for the Proposed Development is the SoS for the Department for Energy Security and Net Zero (formally the Department for Business, Energy and Industrial Strategy).

1.4. Determination under the Act

1.4.1. National Policy Statements (NPSs) are the principal policy documents for NSIPs. Under Section 104 of the Act, the SoS must decide a DCO application in accordance with any relevant NPSs.

1.4.2. Under Section 104 of the Act, the SoS is directed to determine a DCO application with regard to the relevant NPS, the local impact report, 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 which are considered to be 'relevant NPS' under Section 104 of the Act:

- Overarching NPS for energy (NPS EN-1)
- NPS for renewable energy infrastructure (NPS EN-3)
- NPS for electricity networks infrastructure (NPS EN-5)

1.4.3. It is considered that other national and local planning policy will be regarded by the SoS as 'important and relevant' to the Proposed Development.

1.4.4. A detailed explanation of the planning policy framework relevant to the Proposed Development is provided in Chapter 4 of this document.

1.5. Structure of this document

1.5.1. The structure of this document is as follows:

- Chapter 1: this chapter, introduces this document and its purpose.
- Chapter 2: provides an overview of the Proposed Development, its location and surrounding environment, and how the design has been developed.
- Chapter 3: is the Statement of Need, setting out the clear and compelling needs case for the Proposed Development.
- Chapter 4: describes the planning policy framework relevant to the determination of the Proposed Development.

- Chapter 5: provides an appraisal of the Proposed Development against the planning policy framework, drawing on the detailed evidence of policy compliance provided in the PCD, Appendix A of this document (Document Reference 7.1.1).
- Chapter 6: provides an overall conclusion on the planning balance and the case for the grant of development consent.

2. The Proposed Development

2.1. Overview of the Proposed Development

2.1.1. The Proposed Development is a renewable energy scheme, covering an area of approximately 490 hectares (ha), and comprising solar photovoltaic (PV) panels, on-site Battery Energy Storage Systems (BESS), associated infrastructure as well as underground cable connections between panel areas and to connect to the existing National Grid Substation at Norton. The Proposed Development will have the capacity to generate over 50 Megawatts (MW) of electricity. The Proposed Development is located in the north-east of England.

2.1.2. A full description of the Proposed Development and a detailed description of the design and environmental mitigation is provided in ES Chapter 2 The Proposed Development (Document Reference 6.2.2).

2.2. The location of the Proposed Development

2.2.1. The majority of the Proposed Development, including the panel areas, substation and on-site BESS are located within the administrative area of Darlington Borough Council. The eastern part of the cable routes crosses into the administrative area of Stockton-on-Tees Borough Council. The northern extent of the planning boundary (the Order Limits) borders Durham County Council's administrative area.

2.2.2. The Order Limits for the Proposed Development are shown in the Location Plan (Document Reference 2.1).

2.3. Order Limits and land acquisition

2.3.1. The Order Limits are the maximum area of land potentially required for the construction, operation and decommissioning of the Proposed Development.

2.3.2. The Proposed Development has been subject to ongoing design development and the Order Limits have been refined in response to environmental and technical factors as identified as part of the Environmental Impact Assessment (EIA) process, as well as consultation responses. This process has ensured that the Order Limits only includes land which is required to deliver the proposed development and any essential mitigation required. The site selection and design iteration process is summarised in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3).

2.3.3. The Order Limits have been defined to retain flexibility in the routing of the cable routes. Both on-road and off-road cable route options are included in the DCO application as shown on ES Figure 2.13 Underground Cable Routes (Document Reference 6.3.2.13). The off-road cable route is the preferred option of the Applicant due to its comparatively higher performance than on-road cable routes when assessed in relation to factors such as environmental effects (particularly those impacting local

communities such as traffic and visual effects from local villages); overall cost; and construction programme.

2.3.4. The Order Limits include all land that could be required temporarily and/or permanently for the construction and operation of the Proposed Development. As set out in the Statement of Reasons (Document Reference 4.1), the majority of the Proposed Development, comprising the Panel Areas, is to be delivered on land secured via voluntary agreement with landowners. Acquisition of land and rights of access is sought through the DCO in relation to the off-road cable routes only. The Land Plans (Document Reference 2.4) illustrate the plots of land where compulsory acquisition powers are sought through the DCO application.

2.3.5. Voluntary agreement over land for the off-road cable routes is under negotiation and compulsory acquisition powers are sought in the DCO as a further means of delivery should voluntary agreement not be forthcoming. No powers of compulsory acquisition or temporary possession would be required for the on-road cable within publicly adopted highways. The final routing of the underground cables will be determined post-consent and approved via requirement 3 of the draft DCO (Document Reference 3.1).

2.4. Site description

2.4.1. The Order Limits and surroundings are comprised of agricultural fields, interspersed with individual trees, hedgerows, farm access tracks, woodlands and local farmholdings. Woodland, hedgerows and hedgerow trees are relatively frequent in this area and along with the undulating landform serves to constrain visibility, though there are some more elevated and open locations with wider views. The lower lying and flatter area to the east has more arable farming and is less vegetated, leading to more open views.

2.4.2. There are several local villages located within close proximity to the Proposed Development, including Brafferton, Newton Ketton, Great Stainton, Bishopton and Old Stillington.

2.4.3. A description of key environmental designations in and around the Order Limits is presented in ES Figure 2.19 Environmental Constraints Plan (Document Reference 2.19). The nearest national landscape designations are Registered Parks and Gardens located approximately 5km from the Proposed Development. The nearest Area of Outstanding Natural Beauty (AONB) and National Parks are located more than 20km from the Proposed Development.

2.4.4. There are two Areas of High Landscape Value (AHLV) within 2km of the Proposed Development. The Elstob AHLV is located approximately 30m north of the Panel Area B, and the Bradbury, Preston and Mordon Carrs AHLV is located approximately 1.1km north of Panel Area A.

2.4.5. There are eight statutory designated sites within 10km of the Proposed Development comprising one proposed Ramsar site, one Ramsar site, one Special Area of Conservation (SAC), one Special Protection Area (SPA) and four Sites of Special

Scientific Interest (SSSI). Three Local Nature Reserves (LNR) are located within 2km of the Proposed Development. There are two non-statutory designated sites (Local Wildlife Sites) within 1km of the Proposed Development. There is no ancient woodland within or immediately adjacent to the Order Limits, . The nearest designated site is Newton Ketton SSSI located 100m west of Panel Area C.

2.4.6. There are four Scheduled Monuments within 2km of the Proposed Development, the closest is a Motte and Bailey castle, 400m south east of Bishopton (1008668). There are 10 Grade I Listed buildings and 26 Grade II* listed building within 5km, and 71 grade II listed buildings within 2km. There is also potential for as yet unknown various archaeological remains within the Order Limits. Three Conservation areas are located within 2km of the Proposed Development, including Coatham Mundeville, Bishopton and Sadberge.

2.4.7. The Proposed Development is located within the Tees catchment in North-East England. As the Order Limits drains to the River Tees through two main river systems; via the River Skerne to the west and the Newton Beck to the east. The topography in this area is fairly undulating, meaning the land drains to the north, south and west.

2.4.8. The Proposed Development is located mostly within Flood Zone 1, with two small areas located within Flood Zone 3 associated with Little Station Beck and Bishopton Beck in Panel Areas D and F. Flood Zone 3 is defined as an area having less than a 1 in 100 annual exceedance probability of flooding from main rivers. The flood extent associated with the Bishopton Beck is immediately adjacent to the proposed solar PV modules in Panel Area F. The Flood Zone for Little Stainton Beck indicates the flooding occurs at a sharp turn in the watercourse.

2.4.9. The Order Limits and its surrounds host a network of PRoW and permissive trails with other recreational and community land uses, such as golf clubs and woodland areas within the surrounding areas.

2.4.10. Further information on the existing context and characteristics of the site can be found in the Design Approach Document (Document Reference 7.2).

2.5. Design development and consultation

2.5.1. The design of the Proposed Development has been developed taking into account environmental assessment, technical feasibility and cost considerations and feedback received through consultation and engagement exercises. The following DCO application documents describe how the design of the Proposed Development has been determined:

ES Chapter 3 Alternatives and Design Iteration (Document Refence 6.2.3)

2.5.2. As required by Regulation 14(2)(d) of the EIA Regulations, ES Chapter 3 Alternatives and Design Iteration (Document Refence 6.2.3) includes:

"a description of the reasonable alternatives studied by the applicant, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the development on the environment"

2.5.3. The various alternatives considered in the design iteration of the Proposed Development include:

- site layout;
- cable routes;
- solar technologies;
- on-site substation; and
- energy storage facilities and other supporting infrastructure.

2.5.4. A 'no development' alternative would not provide the additional renewable energy generation that would be delivered by the Proposed Development and has therefore not been considered further.

2.5.5. The EIA has been undertaken on the basis of a worst-case scenario to ensure that all potential effects are understood and where necessary, mitigated.

The Consultation Report (Document Reference 5.1)

2.5.6. The Consultation Report (Document Reference 5.1) summarises the statutory pre-application consultation undertaken by the applicant, the feedback received and how that feedback has been taken into account in the design of the Proposed Development. It also identifies non-statutory engagement activities that have been undertaken throughout the pre-application period and how these have informed the design development.

Design Approach Document (Document Reference 7.2)

2.5.7. The Design Approach Document (Document Reference 7.2) (DAD) provides a detailed account of the overall approach and intention of the Applicant in designing the Proposed Development, taking into account the local context and constraints in which it is situated, to achieve 'good design'. It also identifies the parameters within which the Proposed Development would have to be delivered, if consented, to ensure that this good design is subsequently delivered on site. These parameters are secured via requirement 3 of the draft DCO (Document Reference 3.1).

3. Statement of Need

3.1. Introduction

3.1.1. This chapter demonstrates the need for Byers Gill Solar, identifying how the delivery of the Proposed Development would align with legislation, policy and strategy priorities relating to decarbonisation, energy security, and energy affordability. In doing so, it evidences the established need for the Proposed Development. Additionally, this chapter considers how the additional benefits of the Proposed Development align with broader goals and strategy relating to environmental improvement, access to nature and community benefits.

3.2. The need for new renewable energy infrastructure

3.2.1. The Proposed Development would have the capacity to generate over 50MW of electricity, responding to the urgent need for new renewable energy infrastructure that is established through:

- national legislative commitments;
- national policy;
- local planning policy and climate emergency declarations;
- national energy strategy; and
- energy market demand and security concerns.

3.2.2. This chapter considers each of these factors in more detail.

Legislative commitments to decarbonisation

Climate Change Act 2008 and the Climate Change Act 2008 (2050 Target Amendment) Order 2019

3.2.3. Through the Climate Change Act 2008, the UK became the first country in the world to set legally binding carbon emissions targets. The target was to cut emissions by 34% by 2020 and 80% by 2050. Furthermore, the Climate Change Act 2008 legislated that the Committee on Climate Change (CCC) should ensure that emissions targets are evidence-based and independently assessed, and to assess risks and opportunities from climate change. The Climate Change Act 2008 also provides a system of carbon budgeting, with the CCC reporting on whether the UK will meet its targets through five-year carbon budgets.

3.2.4. The UK Low Carbon Transition Plan (2009) [1] set out the road map to 2020 for transitioning to a low-carbon economy. Part of this plan assessed the need to transform the energy sector, noting the need for a range of clean energy technologies, including renewable energy, to meet the targets as set out in the Climate Change Act 2008. The plan states that achieving an 80% reduction in greenhouse gas emissions by 2050 would be through:

"investment in energy efficiency and clean energy technologies such as renewables, nuclear and carbon capture and storage".

3.2.5. The 80% target was amended through the Climate Change Act 2008 (2050 Target Amendment) Order 2019 to achieve net-zero greenhouse gas emissions by 2050. In order to achieve this accelerated target, greater investment in renewable energy is required without delay, to enable electrification of heating, transport, industry and other sectors.

3.2.6. The June 2023 Progress Report by the CCC [2] on the UK's progress to meet the 2050 net-zero target states that confidence in the UK meeting its medium-term targets has reduced in the past year. The CCC states that the UK has lost its climate leadership position, with progress being too slow to meet targets. It notes that, although renewable energy capacity increased in 2022, this increase was not at the rate required to meet the Government's stretching targets, to the extent that solar energy is 'significantly off-track'. There is therefore urgent need for greater investment in solar energy schemes to enable the Government's legally binding targets to be met. The Proposed Development would make a key contribution towards these targets.

Sixth carbon budget (2021)

3.2.7. The Climate Change Act 2008 required the UK Government, through the CCC, to set legally-binding five-year carbon budgets, which cap the amount of greenhouse gases the UK can emit within these budgetary periods. The most recent of these was published in 2021 via the Carbon Budget Order 2021 and covers the period 2033 – 2037. The sixth carbon budget sets UK greenhouse gas emissions to reduce by almost 80% by 2035 and is consistent with the 2050 target of net-zero.

3.2.8. The budget also sets out a balanced net-zero pathway for electricity generation, with electricity generation to be completely decarbonised by 2035. Solar energy is a key aspect of this, with solar generation to increase from 10 Terawatt hours (TWh) in 2019 to 60 TWh in 2035 and 85 TWh in 2050. In order to meet this target, an average of 3 Gigawatts (GW) of solar generation will need to be installed annually. The sixth carbon budget clearly sets out the key role required of solar energy to meet the UK's net-zero targets. The CCC views the UK's progress as slow, in particular with regards to solar, highlighting the urgency for new solar schemes. The Proposed Development would contribute to addressing this concern and would provide an increase in solar energy generation.

National energy strategy

3.2.9. In recent years there have been a succession of strategies released by the Government aiming to support the realisation of the 2050 net zero target and enable the transition clean, green energy. The Proposed Development would contribute to fulfilling the aims of these strategies, demonstrating its national importance and need.

Energy White Paper: powering our net-zero future (2020)

3.2.10. The Energy White Paper [3] sets out how the UK will clean up its energy system and reach net zero emissions by 2050. It states that the growth in renewable energy generation has been critical for the transition to low carbon electricity, and that this is a key enabler for the transition away from fossil fuels. The White Paper identifies that a consistent net-zero energy generation system is likely to be comprised of predominantly wind and solar energy, in order to tackle climate change, decarbonise the UK's electricity supply and meet the demands of electrification. The Proposed Development would contribute to delivering growth of renewable energy generation.

Net Zero Strategy: Build Back Greener (2021)

3.2.11. The Net Zero Strategy [4] sets out policies and proposals for decarbonising all sectors of the UK economy to meet the net-zero target by 2050, including a commitment to decarbonise the electricity grid by 2035. It identifies that low-cost, renewable electricity, such as solar, is the foundation of a net-zero economy, and reaching net-zero by 2050 will be challenging if the power system is not decarbonised by 2035. The Strategy sets out that decarbonisation will be achieved through an accelerated deployment of renewable electricity generation, such as solar energy, driving down the costs of renewable energy. The Proposed Development would contribute to deployment of renewable energy generation.

Powering up Britain: the net-zero growth plan (2023)

3.2.12. Powering up Britain [5] includes plans setting out how the Government will enhance the UK's energy security, seize the economic opportunities of the transition, and deliver on net-zero commitments.

3.2.13. It confirms the Government's commitment to solar power as a necessary form of renewable energy to reach the UK's net-zero targets, including establishing a new Government/industry solar taskforce and developing a solar delivery roadmap to set out the deployment trajectory to achieve 70 GW of solar by 2035, as part of the target set by the Net Zero Strategy (2021) to decarbonise the electricity system by 2035. In 2022, there was 14 GW of solar energy generated, highlighting the need for new solar energy schemes to be delivered at pace to meet the 70 GW target by 2035. The Proposed Development would contribute to delivery of the 70GW of solar target by 2035.

British Energy Security Strategy (2022)

3.2.14. The British Energy Security Strategy [6] seeks to address concerns over the reliance of the UK energy market on foreign sources, particularly within the context of global events. Since the Covid-19 pandemic there has been a large upswell in demand for oil and gas; this has been exacerbated by the Russian invasion of Ukraine, with European gas prices increasing by 200% in 2021. The UK is also estimated to have spent between £50 – 60bn more on gas in 2022 than in a typical year before the pandemic and the gas

crisis. [7] These rising costs in response to global events demonstrate the need to have security of energy supply, in particular of low-costs energies such as solar.

3.2.15. The Strategy seeks to define how Great Britain will accelerate homegrown power for greater energy independence. It notes the need to accelerate the transition from oil and gas towards renewable energy as a way of reaching net-zero and to reduce the cost of energy and limit the UK's exposure to international energy markets.

3.2.16. The Strategy sets out the Government's expectation of a five-fold increase in solar energy generation by 2035. It states support for the effective use of land by encouraging large scale solar projects to locate on previously developed, or lower value land, and to be co-located with storage. The Proposed Development would align with the Strategy by providing a 'homegrown' source of solar energy generation direct to the national grid, with co-located battery storage, operational well before 2035.

UK energy market demand

3.2.17. Beyond legislative and policy targets, the need for the Proposed Development is also established through analysis of the UK energy market and in particular, the need to meet consumer demand, affordably.

Responding to market demand

3.2.18. It is predicted that the demand for electricity in the UK will increase by 50% by 2035 and will have doubled by 2050 [8]. This is the result of a move away from carbon intensive sources of energy and the electrification of industry and other sectors.

3.2.19. National Grid publishes Future Energy Scenarios (FES) every year, with a series of credible future scenarios for the UK to achieve net-zero by 2050. FES 2022 states that annual and peak electricity demands will increase as a result of electrification of existing fossil fuel demand, such as residential heating, transport, industrial and commercial uses, as well as growth in electricity demand in new sectors, requiring strategic investment in electricity generation [9]. Decarbonising the power sector is identified as a prerequisite for fully decarbonising other sectors.

3.2.20. It is also highlighted in FES 2023 that, with increasing amounts of renewable generation, there will be scenarios where curtailment will be necessary, with supply outstripping demand. Energy storage options, such as the Battery Energy Storage Solution (BESS) and interconnectors being planned in the Proposed Development, will therefore be an important source of flexibility and resilience of supply to reduce curtailment.

3.2.21. Compared to solar, other forms of large-scale, low-carbon electricity generation developments have a long build-out timescale and are therefore slower to respond to consumer needs. Generation at Hinkley Point C is expected to start in 2029, 15 years after being granted a Nuclear Site Licence [10]. The delivery of onshore wind projects has been effectively prevented since 2015, due to policy barriers that required unanimous community backing to proposals. In September 2023, the National Planning

Policy Framework (NPPF) was published which relaxed these requirements, although community support is still required. [11] The Swansea Bay Tidal Lagoon was rendered unviable due to a Contract for Difference not being agreed with the government, and further plans have yet to be confirmed. The development duration for solar energy assets is significantly shorter than these other forms of energy development; Byers Gill Solar is predicted to have a construction time of 12 – 24 months, and so would be operational within a relatively short amount of time following consent. The Proposed Development would enable the UK to move towards low-carbon energy sources at a faster pace, and the less carbon emitted through early action will better enable meeting the 2050 net-zero target than later action.

3.2.22. Alongside increasing demand for electricity in the UK energy market, the overall costs of energy are increasing. FES 2023 notes the unprecedented increases in the cost of energy, with over 5 million British households spending over 10% of disposable income on energy costs in 2023. The increased cost of energy led the UK government to launch the Energy Bills Support Scheme, running from 2022 – 2023, to provide every household a £400 discount on their energy bills, alongside other measures such as one-off payments to those receiving different benefits payments, and a council tax rebate to most households. The Office for Budget Responsibility estimated the cost of the Government's response to rising energy prices to be £78bn, [12] with this being ultimately underwritten by the UK taxpayer.

3.2.23. Solar energy is already the cheapest form of energy to produce, and is set to get cheaper. The Department for Energy Security and Net Zero predicts that the construction, operation and maintenance costs for solar generation up until 2040 will reduce considerably [13]. Solar energy such as the Proposed Development is therefore well placed to contribute to lowering the cost of UK energy bills in the foreseeable future.

National Policy Statements (NPS)

3.2.24. As set out in chapter 1 of this document, the energy NPSs are the principal policy documents for the Proposed Development. The revision to the suite of energy NPS, designated on 17 January 2024, introduced specific policy relating to solar PV generation NSIPs and identifies an explicit national need for such development. Low carbon energy generation has been identified as a "**Critical National Priority**".

NPS EN-1

3.2.25. NPS EN-1 [14] provides overarching policy for energy NSIPs. Chapter 2 of NPS EN-1 reflects the current national policy and legislative position on energy infrastructure development, including the legally binding commitment made through the Climate Change Act 2008 (as amended) to achieve net zero by 2050. Emphasis is made on decarbonising the power sector and ensuring security of energy supply, with reference to the Net Zero Strategy.

3.2.26. Chapter 3 of NPS EN-1 describes the urgent need, nationally, for new energy NSIPs in order to meet Government energy objectives. It identifies the need for a diversity of infrastructure (to include storage and interconnectors) in delivering the required supply. In paragraph 3.1.2, NPS EN-1 recognises that developing such infrastructure will result in some significant residual adverse impacts, but that these effects are to be minimised by the application of policy in the NPS.

3.2.27. Paragraphs 3.2.6 to 3.2.7 of NPS EN-1 direct the SoS to determine energy NSIPS on the basis that 'the government has demonstrated that there is a need for those types of infrastructure which is urgent' and that 'substantial weight should be given to this need when considering applications for development consent'. Paragraph 3.2.8 states that the SoS is not required to consider the specific contribution of any individual project to satisfying the need established in the NPS.

3.2.28. Paragraphs 3.3.20 to 3.3.24 highlight the role of wind and solar in increasing generating capacity, noting that they are the lowest cost options for electricity generation and are likely to dominate a secure, reliable and net zero system by 2050. The need to supplement this with other technologies is highlighted. Furthermore, paragraphs 3.3.25 to 3.3.31 of NPS EN-1 identify the important role of electricity storage in achieving net zero and enabling flexibility within the energy system.

3.2.29. Crucially, NPS EN-1 introduces the critical national priority (CNP) for low carbon infrastructure. Set out in section 4.2 of NPS EN-1, the CNP explicitly identifies the need for nationally significant low carbon infrastructure in order to meet Government decarbonisation targets and achieve net zero ambitions. Paragraph 4.2.5 confirms that solar photovoltaic generation is a form of CNP infrastructure.

3.2.30. Paragraph 4.2.6 states that substantial weight should be given to the overarching need case for CNP infrastructure, as a starting point for determination of energy infrastructure applications. It is clarified in paragraphs 4.2.7 - 4.2.9 that this need case is to be considered taking into account the impacts of the project and the application of the mitigation hierarchy, however the CNP policy will influence how residual impacts are considered in the overall planning balance. Whilst further detail on this is provided in chapter 5 of this document, NPS EN-1 is referring here to the policy position that for CNP infrastructure, residual impacts remaining after application of the mitigation hierarchy are unlikely to outweigh the urgent need for its development. Exceptions to this relate to a limited, specified set of unacceptable risks presented by residual impacts. Paragraph 4.2.16 states that the starting point for SoS decision-making is that CNP infrastructures should be treated as if it has met any tests set out in policy requiring a clear outweighing of harm, exceptionality or very special circumstances.

3.2.31. That position is different for residual impacts relating to a Habitats Regulations Assessment (HRA) or Marine Conservation Zone (MCZ), neither of which arerelevant to the Proposed Development.

NPS EN-3

3.2.32. NPS EN-3 [15] introduces specific policy relating to solar PV generation NSIPs. In section 2.1, it reflects the position of NPS EN-1 in establishing the need for new major renewable energy infrastructure, including the definition of CNP outlined above. In reference to need for solar specifically, paragraphs 210.9 to 2.10.14 of NPS EN-3 identifies the Government's commitment to sustained growth in solar capacity, recognising the benefits of solar infrastructure in being the cheapest form of electricity generation and being able to be built quickly.

Local planning policy and climate emergency declarations

3.2.33. In 2019, Darlington Borough Council (DBC) acknowledged the threat of climate change and passed a motion committing the Council to reach net-zero carbon emissions by 2050. In 2023, this deadline was brought forward to 2040. DBC published a Climate Change Strategy and associated Action Plan in 2020. The Strategy sets out DBC's plans to both mitigate and adapt to climate change, this includes an objective of increasing renewable energy generation through increasing off-site renewable energy generation.

3.2.34. Stockton-on-Tees Borough Council (SBC) adopted the Environmental Sustainability and Carbon Reduction Strategy in 2022, which sets out the aims of:

- Achieving net-zero greenhouse gas emissions;
- Protecting and enhancing the natural environment;
- Using all resources efficiently and minimising waste; and
- Adapting to the impacts of climate change.

3.2.35. Durham County Council (DCC) also declared a climate emergency in 2019, and adopted a Climate Emergency and Response Plan 2022 – 2024. This commits DCC to reaching net-zero Council emissions by 2030 and an 80% reduction or offset of carbon emissions in County Durham. The Council will work with partners and communities to achieve a carbon neutral County Durham by 2045.

3.2.36. In 2023, DCC also consulted on a Solar Energy Supplementary Planning Document (SPD). This SPD provides guidance on key planning issues associated with solar to ensure panels are sited, designed and of a scale which does not harm County Durham's unique landscape character, biodiversity, heritage assets and, protects the best and most versatile agricultural land. This includes large scale commercial solar farms of 50MW or more.

3.2.37. It is considered that the climate declarations made by the DBC, SBC and DCC add further weight to the national policy position evidenced in the designated NPSs of the CNP for low carbon energy generation, such as the Proposed Development.

Summary: the need for Byers Gill Solar

3.2.38. Byers Gill Solar would make a positive impact on the UK's energy market, by providing an expected 180 MW of low-cost, clean and renewable electricity to UK customers. It would also enable a flexible supply of energy to the grid through the provision of BESS. Byers Gill Solar is therefore well placed to tackle many of the issues currently facing the UK energy market.

3.2.39. The UK Government has a legally binding target to reach net-zero emissions by 2050, which is of global significance. Recent national strategy has placed increasing emphasis on the role of solar energy generation in meeting these targets, recognising its benefits as relatively quick and low cost to deliver. This is reflected in national policy, in which the recently designated revised energy NPSs explicitly recognise the urgent need for solar NSIPs. The NPSs set a clear direction to the SoS in determining low carbon energy infrastructure which recognises the CNP for its delivery and places an expectation that residual effects will not outweigh that need, other than under specific circumstances of unacceptable risk.

3.2.40. As a result of the 2050 net-zero target, demand for electricity is expected to rise with the increased electrification of all sectors. To meet this escalating demand, the UK requires a major expansion of solar energy generation, which is reflected in a succession of Government energy strategy and targets. Although the amount of solar energy generated in the UK is rising, the number of solar energy developments needs to significantly increase in order to meet the 70GW target by 2035 from the 2022 level of 14GW; the Proposed Development would make a key contribution to this. Failing to achieve this will put the legally binding 2050 net zero target at risk, with a shortfall in solar energy over the next few years increasing the magnitude of renewable energy required in the future. The costs of solar energy are also expected to decrease over the next few decades, meaning solar is not only a clean energy source, but also a low-cost one.

3.2.41. As well as rising demand for electricity, recent surges in the cost of gas following the pandemic and the invasion of Ukraine have cost the UK Government billions in energy support payments to households. Solar energy represents an affordable and secure supply of electricity, which can be implemented quickly in comparison to other forms of energy generation. The costs of solar energy generation have fallen and are predicted to continue to fall up until 2040, so Byers Gill Solar is a timely scheme to take advantage of this and contribute to reducing the cost of energy in the long term.

3.2.42. The need for action to tackle the climate crisis is also recognised at the local level. The 'host' local planning authorities for the Proposed Development have taken decisive action in declaring a climate emergency and/or producing ambitious strategies for how to adapt and mitigate climate change, setting their own local targets for reaching net zero. Byers Gill Solar accordingly responds to local demands to address the climate emergency and would contribute to achieving net zero.

3.2.43. It is considered that the Proposed Development is essential for the achievement of the national energy strategy, is supported by national and local planning policy and would contribute to the delivery of the legally binding UK target to achieve net zero by 2050.

3.3. Additional benefits of the Proposed Development

3.3.1. Alongside the delivery of renewable energy, Byers Gill Solar will also provide additional benefits which are most notable in terms of biodiversity, enhancements to Public Rights of Way (PRoW) and community benefits.

Biodiversity

3.3.2. The Environment Act 2021 introduced the concept of mandatory biodiversity net gain (BNG) for new development, including for NSIPs. The provisions relating to NSIPs are not yet in force, but are widely expected to be introduced from late 2025. Schedule 15 of the Environment Act 2021, when commenced, will amend the Planning Act 2008 to introduce a "biodiversity gain statement" to the NPS. Industry expectations are that the biodiversity gain statement will specify a requirement for new NSIPs to provide a minimum 10% BNG. The new provisions when commenced would require the loss of habitat to be avoided, and any loss to be mitigated by on-site or off-site habitat creation, with on-site being the preferred option. Habitats would need to be secured for at least 30 years. Transitional provisions for the introduction of the regime are not known, but it would be unlikely to apply retrospectively to NSIPs already granted development consent, or within the examination process.

3.3.3. Byers Gill Solar would deliver biodiversity improvements within the Order Limits and facilitate nature recovery. The Proposed Development has been designed so that impacts upon important habitats (comprising woodland, field margins, hedgerows and ponds) are avoided where reasonably practicable, and compensated for where not, through the retention of existing habitat and the creation or replacement of habitat.

3.3.4. Embedded measures include, among others:

- Allocating two large fields in the Order Limits solely for habitat enhancement, which will be sown without fertiliser to help lower nutrients in the soil, and will be retained during the 40-year duration of the Proposed Development specifically for ground nesting birds.
- Revising the layout of the Proposed Development to allow the retention of woodland and the majority of hedgerows and associated trees.
- Existing hedgerows will be enhanced through additional underplanting by infilling gaps to improve species diversity and help create wildlife corridors that connect the Order Limits with hedgerows and treelines within the wider landscape.
- Specific species in the local area have been considered to reduce any impacts on them.

- Planting a mix of grasses and wildflowers to provide habitats, food resources for farmland birds, pollination opportunities, and to lower nutrients in the soil following the agricultural use of the land.
- New and existing planting will be managed to maximise biodiversity and the screening of the PV panels and site infrastructure.

3.3.5. As a result of these measures, the Proposed Development is anticipated to provide an 88% net gain of in area habitat Biodiversity Units (BUs) and a 108% net gain of hedgerow BUs, significantly over the forthcoming mandatory requirement. The implementation of habitat creation and enhancement measures after construction of the scheme are outlined in ES Appendix 2.14 Outline Landscape and Ecology Management Plan (LEMP) (Document Reference 6.4.2.14). The implementation of the Outline LEMP would be secured for the 40-year duration of the Proposed Development through the DCO once granted, as set out in the draft DCO (Document Reference 3.1).

Enhanced access and interpretation

3.3.6. A total of approximately 3,600m of permissive paths will be implemented during the construction stage of the Proposed Development. The new routes would connect into the existing footpath networks, enhancing local connectivity. It is the intention of the Applicant to retain access to footpaths during the operational stage during maintenance activities wherever safe and practicable to do so. Footpaths are further detailed in ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9).

3.3.7. Interpretation would be provided at points of interest along the PRoW network and permissive routes through the Panel Areas. These would identify information of local landscape, biodiversity and heritage interest. In addition, some interpretation would describe aspects of the solar farm itself – primarily in areas where the Proposed Development would be more openly visible. This interpretation would contribute to the Cultural heritage and/or Cultural associations aspects of landscape value, see ES Appendix 7.3 Landscape Sensitivity Analysis (Document Reference 6.4.7.3).

3.3.8. As secured via the Environmental Masterplan (Document Reference 2.5), the Proposed Development would deliver a community orchard in Bishopton and both a forest school/sensory garden facility and a car park for the Bishopton Redmarshall Primary School.

Community Benefit Fund

3.3.9. Of relevance for the general public is the Applicant's commitment to the provision of a Community Benefit Fund of approximately £1.5m across the lifecycle of the Proposed Development. How the Community Benefit Fund will be allocated is subject to agreement, but previous projects delivered by the Applicant have ensured that the funds are spent on things such as electric vehicle charging points, further PRoW improvements in the wider area, fuel poverty measures, picnic benches, rooftop solar for community buildings and funding for other local sustainable initiatives. It is

recognised by the Applicant, and within this document, that this provision cannot be taken into account as part of the overall planning balance to be considered by the decision-maker.

3.4. Conclusion

3.4.1. This chapter has evidenced that there is a clearly established need for the Proposed Development in order to meet national and local targets of achieving net zero, particularly within the context of a more urgent need for action given progress to date has not sufficiently kept pace to achieve those targets. The principle of the Proposed Development is strongly and unequivocally supported by national policy for energy NSIPs as well as national strategy on tackling climate change and ensuring energy security. In addition to meeting a clear national and local need, the Proposed Development would provide enhancement to the local area through delivering a significant net gain in biodiversity and improvements to access and connectivity of the countryside.

4. Planning Policy Framework

4.1. Introduction

4.1.1. This chapter provides a summary of the relevant NPSs, and other planning policy documents considered to be relevant and important to the Proposed Development. It provides an overview of the energy NPSs, the NPPF, and relevant local policy documents comprising the relevant planning policy framework.

4.1.2. Chapter 5 of this Statement provides a summary of the overall compliance of the Proposed Development with the policy framework outlined in this chapter, drawing on the detailed appraisal of policy compliance provided in Appendix A: Policy Compliance Document (Document Reference 7.1.1)

4.2. National Policy

National Policy Statements

4.2.1. This section provides an overview of the purpose of NPS EN-1, EN-3 and EN-5 of the energy NPSs.

NPS EN-1 (designated January 2024)

4.2.2. The Overarching NPS for Energy (EN-1) sets out the overall national energy policy for nationally significant energy infrastructure. It is intended to be combined with relevant technology-specific NPSs to form the primary basis for decisions by the SoS. Chapter 2 of NPS EN-1 reflects the current national policy and legislative position on energy infrastructure development, including the legally binding commitment made through the Climate Change Act 2008 to be net zero by 2050. Emphasis is made on decarbonising the power sector and ensuring security of energy supply, with reference to the Net Zero Strategy.

4.2.3. In addition to establishing the CNP for low carbon energy infrastructure (as outlined in the preceding chapter), NPS EN-1 sets out topic-specific 'assessment principles' and 'generic impacts' which set out how energy NSIP applications should be prepared by the Applicant and considered by the SoS.

NPS EN-3 (designated January 2024)

4.2.4. NPS EN-3 is a technology-specific NPS, focusing on renewable energy generation projects. It is therefore to be considered alongside NPS EN-1 as the primary policy basis for decisions on renewable energy infrastructure DCO applications. Section 2.10 sets out policy specific to solar NSIP development, directing the approach to assessment and consideration of impacts which are additional to those detailed in NPS EN-1.

NPS EN-5 (designated January 2024)

4.2.5. NPS EN-5 is a technology-specific NPS, focusing on infrastructure for electricity networks, to include transmissions systems (above or underground) and associated infrastructure such as substations and converter stations. It is therefore to be considered alongside NPS EN-1 as the primary policy basis for decisions on electricity network infrastructure DCO applications. It is considered to be a relevant NPS for the Proposed Development due to the inclusion of electricity network infrastructure (underground cables and an on-site substation) within the project.

4.2.6. NPS EN-5 sets out assessment principles specific to electricity network infrastructure, with a predominant focus on overhead lines, in addition to those detailed in NPS EN-1.

National Planning Policy Framework (NPPF) (2023)

4.2.7. The NPPF [16] sets out the Government's planning policies for England and how they should be applied. It does not currently contain any specific policies for NSIPs. Paragraph 5 states that NSIPs are determined by the framework set out in the Planning Act 2008 and the relevant NPSs. The SoS may consider the NPPF, or parts of it, to be a relevant and important matter for their consideration of this NSIP.

4.2.8. 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. Sustainable development is to be positively promoted in the planning framework through 'the presumption in favour of sustainable development' set out in paragraphs 10 and 11.

4.2.9. Section 8 of the NPPF seeks to promote healthy and safe communities. Paragraph 104 states that planning policies and decisions should protect and enhance public rights of way and access, including taking opportunities to provide better facilities for users.

4.2.10. Paragraph 123 explains that decisions should be made in the interest of promoting the most effective use of land, while seeking to safeguard and improve the environment and ensure safe and healthy living conditions.

4.2.11. In order to tackle climate change, paragraph 157 states that the planning system should support the transition to a low carbon future by encouraging radical reductions in greenhouse gas emissions and supporting renewable and low carbon energy alternatives.

4.2.12. Paragraph 163 states that local planning authorities faced with applications for renewable energy developments should not require applicants to demonstrate the need for the renewable energy, approving the application if its impacts are acceptable.

4.2.13. Paragraph 180 of the NPPF says that decisions should contribute and enhance the natural and local environment by recognising and embodying the local character as well as protecting sites of biodiversity. Net gains should be sought for biodiversity, whilst

new and existing development should be prevented from contributing to, or being put at unacceptable risk from, sources of pollution or land instability.

4.2.14. Paragraph 186 sets out that if significant harm to biodiversity through development cannot be avoided, mitigated or compensated for, planning permission should be refused.

4.2.15. Paragraph 195 of the NPPF explains that heritage assets should be conserved in a manner appropriate to their significance. Paragraphs 205 to 214 set out how impacts to heritage assets should be considered in decision-making, such that harm to assets should be clearly justified and only found acceptable where public benefits demonstrably outweigh that harm.

4.3. Local Planning Policy

4.3.1. This section provides a summary of the local planning policies which are relevant to the Proposed Development. It first identifies the adopted and emerging local plan documents or supporting guidance for each local authority, before listing the relevant policies within those documents. The SoS may consider these policies, or parts of them, to be relevant and important matters for their consideration of this DCO application.

Darlington Borough Council

4.3.2. The relevant development plan documents for DBC are as follows:

- The Local Plan (2016 – 2036), adopted in February 2022; [17]
- Tees Valley Joint Minerals and Waste Development Plan Documents (DPD), adopted 2011. [18] This is a Joint Plan with four other LPAs grouped as 'Tees Valley', which are: Hartlepool; Middlesborough; Redcar and Cleveland; and, Stockton-on-Tees.

Stockton-on-Tees Borough Council

4.3.3. The relevant development plan documents for SBC are as follows:

- Local Plan (adopted January 2019); [19]
- Tees Valley Joint Minerals and Waste Development Plan Documents (DPD), adopted 2011. As mentioned above in relation to Darlington Borough Council, this is a joint plan with 4 LPAs comprising of three documents, of which the Policies and Sites DPD has been considered in Appendix A; and
- Sustainable Design Guide SPD (2011). [20]

Durham County Council

4.3.4. The relevant development plan document for DCC is the County Durham Plan (adopted October 2020). [21] The Solar Energy SPD – Consultation Draft (2023) is also of some relevance to the Proposed Development. [22]

Table 4-1 Relevant Local Policy

Topic	Policy documents	Policy reference / title
Climate change	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC1: Sustainable Design Principles and Climate Change (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV2: Renewable and Low Carbon Energy Generation
	County Durham Plan (adopted 2020)	Policy 29: Sustainable Design Policy 33: Renewable and Low Carbon Energy
	County Durham Solar Energy SPD (2023) – latest consultation draft	Purpose of the SPD
Biodiversity	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy ENV4: Green and Blue Infrastructure (Strategic Policy) Policy ENV5: Green Infrastructure Standards Policy ENV7: Biodiversity and Geodiversity and Development (Strategic Policy) Policy ENV8: Assessing a Development's Impact on Biodiversity
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV5: Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity Policy ENV6: Green Infrastructure, Open Space, Green Wedges and Agricultural Land
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 3.2: Development setting Section 4.11: Green Infrastructure
	County Durham Plan (adopted 2020)	Policy 26: Green Infrastructure Policy 40: Trees, Woodlands and Hedges Policy 41: Biodiversity and Geodiversity Policy 42: Internationally Designated Sites Policy 43: Protected Species and Nationally and Locally Protected Sites
Landscape and visual	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC1: Sustainable Design Principles and Climate Change (Strategic Policy) Policy DC4: Safeguarding Amenity Policy ENV3: Local Landscape Character (Strategic Policy) Policy IN9: Renewable Energy Infrastructure (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	ENV5: Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity

Topic	Policy documents	Policy reference / title
		SD5 - Natural, Built and Historic Environment SD8: Sustainable Design Principles HE2: Conserving and Enhancing Stockton's Heritage Assets
	County Durham Plan (adopted 2020)	Policy 10: Development in the Countryside Policy 29: Sustainable Design Policy 39: Landscape
Cultural heritage	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy ENV1: Protecting, Enhancing and Promoting Darlington's Historic Environment (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy SD5: Natural, Built and Historic Environment Policy SD8: Sustainable Design Principles Policy HE2: Conserving and Enhancing Stockton's Heritage Assets
	County Durham Plan (adopted 2020)	Policy 44: Historic Environment
Land use	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC3: Health and Wellbeing DC5: Skills and Training IN1: Delivering a Sustainable Transport Network IN2: Improving Access and Accessibility Policy IN5: Airport Safety IN6: Utilities Infrastructure IN9: Renewable Energy Infrastructure
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy EG5: Durham Tees Valley Airport TI1: Transport Infrastructure ENV 2: Renewable and Low Carbon Energy Generation
	County Durham Plan (adopted 2020)	Policy 6: Development on Unallocated Sites Policy 10: Development in the Countryside Policy 14: Best and Most Versatile Agricultural Land and Soil Resources Policy 32: Despoiled, Degraded, Derelict, Contaminated and Unstable Land Policy 47: Sustainable Minerals and Waste Resource Management

Topic	Policy documents	Policy reference / title
	Tees Valley Joint Minerals and Waste DPD – Core Strategy (adopted 2011)	Policy MWC1: Minerals Strategy MWC4: Safeguarding of Minerals Resources Policy MWC6: Waste Strategy Policy MWP1: Waste Audits
Hydrology	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC2: Flood Risk & Water Management (Strategic Policy) Policy DC3: Health and Wellbeing Policy ENV4: Green and Blue Infrastructure
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy SD5: Natural, Built and Historic Environment Policy ENV4: Reducing and Mitigating Flood Risk Policy ENV7: Ground, Air, Water, Noise and Light Pollution
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 5.5: Water Efficiency and Sustainable Drainage
	County Durham Plan (adopted 2020)	Policy 35: Water Management
Noise and vibration	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC3: Health and Wellbeing Policy DC4: Safeguarding Amenity
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV7: Ground, Air, Water, Noise and Light Pollution
	County Durham Plan (adopted 2020)	Policy 31: Amenity and Pollution
Traffic and transport	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy IN1: Delivering a Sustainable Transport Network (Strategic Policy) Policy IN2: Improving Access and Accessibility (Strategic Policy) Policy IN3: Transport Assessments and Travel Plans Policy IN5: Airport Safety Policy IN6: Utilities Infrastructure (Strategic Policy) Policy IN10: Supporting the Delivery of Community and Social Infrastructure (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy EG5: Durham Tees Valley Airport Policy TI1: Transport Infrastructure

Topic	Policy documents	Policy reference / title
		Policy TI2: Community Infrastructure
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 4.3: Connectivity
	County Durham Plan (adopted 2020)	Policy 21: Delivering Sustainable Transport
Cumulative effects	Darlington Local Plan 2016 – 2036 (adopted 2022)	DC3: Health and Wellbeing
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	ENV7: Ground, Air, Water, Noise and Light Pollution
	County Durham Plan (adopted 2020)	Policy 31: Amenity and Pollution

4.3.5. sets out the relevant local policies. For a detailed account of the compliance of the Proposed Development with relevant local policy, please refer to Appendix A: Policy Compliance Document (Document Reference 7.1.1).

4.3.6. The identified policies have also been shared with the relevant three Local Planning Authorities for comment as part of the Early Adopter's Programme (EAP), with further policies suggested by them included within the below table and the PCD.

Table 4-1 Relevant Local Policy

Topic	Policy documents	Policy reference / title
Climate change	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC1: Sustainable Design Principles and Climate Change (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV2: Renewable and Low Carbon Energy Generation
	County Durham Plan (adopted 2020)	Policy 29: Sustainable Design Policy 33: Renewable and Low Carbon Energy
	County Durham Solar Energy SPD (2023) – latest consultation draft	Purpose of the SPD
Biodiversity	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy ENV4: Green and Blue Infrastructure (Strategic Policy) Policy ENV5: Green Infrastructure Standards Policy ENV7: Biodiversity and Geodiversity and Development (Strategic Policy) Policy ENV8: Assessing a Development's Impact on Biodiversity
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV5: Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity

Topic	Policy documents	Policy reference / title
		Policy ENV6: Green Infrastructure, Open Space, Green Wedges and Agricultural Land
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 3.2: Development setting Section 4.11: Green Infrastructure
	County Durham Plan (adopted 2020)	Policy 26: Green Infrastructure Policy 40: Trees, Woodlands and Hedges Policy 41: Biodiversity and Geodiversity Policy 42: Internationally Designated Sites Policy 43: Protected Species and Nationally and Locally Protected Sites
Landscape and visual	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC1: Sustainable Design Principles and Climate Change (Strategic Policy) Policy DC4: Safeguarding Amenity Policy ENV3: Local Landscape Character (Strategic Policy) Policy IN9: Renewable Energy Infrastructure (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	ENV5: Preserve, Protect and Enhance Ecological Networks, Biodiversity and Geodiversity SD5 - Natural, Built and Historic Environment SD8: Sustainable Design Principles HE2: Conserving and Enhancing Stockton's Heritage Assets
	County Durham Plan (adopted 2020)	Policy 10: Development in the Countryside Policy 29: Sustainable Design Policy 39: Landscape
Cultural heritage	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy ENV1: Protecting, Enhancing and Promoting Darlington's Historic Environment (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy SD5: Natural, Built and Historic Environment Policy SD8: Sustainable Design Principles Policy HE2: Conserving and Enhancing Stockton's Heritage Assets
	County Durham Plan (adopted 2020)	Policy 44: Historic Environment
Land use	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC3: Health and Wellbeing

Topic	Policy documents	Policy reference / title
		DC5: Skills and Training IN1: Delivering a Sustainable Transport Network IN2: Improving Access and Accessibility Policy IN5: Airport Safety IN6: Utilities Infrastructure IN9: Renewable Energy Infrastructure
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy EG5: Durham Tees Valley Airport TI1: Transport Infrastructure ENV 2: Renewable and Low Carbon Energy Generation
	County Durham Plan (adopted 2020)	Policy 6: Development on Unallocated Sites Policy 10: Development in the Countryside Policy 14: Best and Most Versatile Agricultural Land and Soil Resources Policy 32: Despoiled, Degraded, Derelict, Contaminated and Unstable Land Policy 47: Sustainable Minerals and Waste Resource Management
	Tees Valley Joint Minerals and Waste DPD – Core Strategy (adopted 2011)	Policy MWC1: Minerals Strategy MWC4: Safeguarding of Minerals Resources Policy MWC6: Waste Strategy Policy MWP1: Waste Audits
Hydrology	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC2: Flood Risk & Water Management (Strategic Policy) Policy DC3: Health and Wellbeing Policy ENV4: Green and Blue Infrastructure
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy SD5: Natural, Built and Historic Environment Policy ENV4: Reducing and Mitigating Flood Risk Policy ENV7: Ground, Air, Water, Noise and Light Pollution
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 5.5: Water Efficiency and Sustainable Drainage
	County Durham Plan (adopted 2020)	Policy 35: Water Management

Topic	Policy documents	Policy reference / title
Noise and vibration	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy DC3: Health and Wellbeing Policy DC4: Safeguarding Amenity
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy ENV7: Ground, Air, Water, Noise and Light Pollution
	County Durham Plan (adopted 2020)	Policy 31: Amenity and Pollution
Traffic and transport	Darlington Local Plan 2016 – 2036 (adopted 2022)	Policy IN1: Delivering a Sustainable Transport Network (Strategic Policy) Policy IN2: Improving Access and Accessibility (Strategic Policy) Policy IN3: Transport Assessments and Travel Plans Policy IN5: Airport Safety Policy IN6: Utilities Infrastructure (Strategic Policy) Policy IN10: Supporting the Delivery of Community and Social Infrastructure (Strategic Policy)
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	Policy EG5: Durham Tees Valley Airport Policy TI1: Transport Infrastructure Policy TI2: Community Infrastructure
	Stockton-on-Tees Borough Council Sustainable Design Guide SPD (2011)	Section 4.3: Connectivity
	County Durham Plan (adopted 2020)	Policy 21: Delivering Sustainable Transport
Cumulative effects	Darlington Local Plan 2016 – 2036 (adopted 2022)	DC3: Health and Wellbeing
	Stockton-on-Tees Borough Council Local Plan (adopted 2019)	ENV7: Ground, Air, Water, Noise and Light Pollution
	County Durham Plan (adopted 2020)	Policy 31: Amenity and Pollution

4.4. Summary

4.4.1. This section has provided an overview of the relevant planning policy framework at both a national and local level. A more detailed examination of these policies can be found within Appendix A: Policy Compliance Document (Document Reference 7.1.1).

5. Planning Appraisal

5.1. Introduction

5.1.1. This section provides an appraisal of the Proposed Development under the planning policy framework outlined in Chapter 4. It draws on the detailed analysis of policy compliance provided in Appendix A Policy Compliance Document (Document Reference 7.1.1) to appraise the Proposed Development against the key relevant themes emerging in national and local planning policy. In doing so, it draws an overall conclusion as to the compliance of the Proposed Development in relation to policy under each theme.

5.1.2. The themes considered in this section have been identified taking into account the policies contained across the relevant NPS, the NPPF and local policy documents, as well as other matters that are of particular relevance to the determination of this development. To aid the reader, a short summary of the relevant policies for each theme is provided under each sub-section, followed by an appraisal of the Proposed Development's compliance with them. For themes that have particularly extensive or detailed policy requirements, a short concluding summary of that appraisal is provided at the end of the section. Please refer to Appendix A Policy Compliance Document (Document Reference 7.1.1) for a detailed assessment of the Proposed Development against all relevant paragraphs of the NPS and local policies.

5.1.3. As stated in Appendix A: Policy Compliance Document (Document Reference 7.1.1), the primary policy for SoS decision-making is the relevant NPSs. Local planning policies are considered to be more relevant and important as a further consideration in that decision-making, whereas the NPPF is considered to be of less relevance to the SoS decision-making given that the relevant NPS is the appropriate formulation of Government policy for NSIPs. As such, whilst the relevant sections of the NPPF are outlined below, and specific references to the NPPF are made in the ES where relevant to a topic assessment, a detailed appraisal of the compliance of the Proposed Development is not provided in this Statement. It is considered to be adequately reflected in the local planning policies (which must be in general accordance with the NPPF), and the NPSs.

5.2. Principle of Development

5.2.1. There are two key aspects to the consideration of Byers Gill Solar in principle; the need for the development and the location of the development (taking into account alternatives available). Accordingly, this section considers these points in turn.

Need

Summary of policy position

5.2.2. NPS EN-1 outlines the need for new energy infrastructure in paragraphs 3.2.6-7, stating that decision makers should assess applications on the basis that the government has established the need. Substantial weight should be given to this. Paragraph 4.1.3 of NPS EN-1 states that the level and urgency of the need for energy infrastructure means that SoS should start with a presumption in favour of granting consent. The benefits of the scheme, such as energy infrastructure, environmental enhancements and other benefits, should be taken into account when weighing the adverse impacts of development, such as environmental and cumulative impacts, as well as mitigation measures, as set out in paragraph 4.1.5 of NPS EN-1.

5.2.3. NPS EN-1 paragraphs 4.2.4-5 outline that there is a Critical National Priority (CNP) for the provision of nationally significant low carbon infrastructure. This includes onshore electricity generation that does not involve fossil fuel combustion and power lines. Paragraph 4.2.7 adds that the CNP policy applies following the normal consideration of the need case, the impacts of the project, and the application of the mitigation hierarchy. Paragraph 4.2.14 states that the SoS will consider the impacts and benefits of CNP Infrastructure on a case-by-case basis.

5.2.4. NPS EN-1 paragraph 4.1.7 states that (emphasis added):

"For projects which qualify as CNP Infrastructure, **it is likely that the need case will outweigh the residual effects in all but the most exceptional cases**. This presumption, however, does not apply to residual impacts which present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk."

5.2.5. As a result, paragraphs 4.2.15-17 direct that the SoS should assume that the proposed development has met any tests which require a clear outweighing of harm, exceptionality or very special circumstances.

5.2.6. County Durham Plan Policy 33 states that significant weight will be given to the achievement of wide social, environmental and economic benefits of renewable energy development. SBC Policy ENV2 also supports the local production of energy from renewable sources, as does DBC Policy IN9.

Appraisal of the Proposed Development

5.2.7. The need for the Proposed Development is established through the designation of the Energy NPSs. NPS EN-1 establishes the CNP for nationally significant low carbon infrastructure, in the context of wider legal and policy commitments by the UK

Government. It is considered that this should be afforded very significant weight in the overall planning balance. To avoid duplication, further detail on the clearly established need for the Proposed Development, taking into account both the NPSs and wider Government policy, is provided in Chapter 3 of this document.

5.2.8. No residual effects of the Proposed Development have been identified that would result in an unacceptable risk to human health and public safety; defence; irreplaceable habitats; the achievement of net zero; offshore navigation; or, flood and coastal erosion. Further, there are no residual HRA or MCZ impacts.. It is therefore considered that in accordance with the policy position of NPS EN-1, the needs case of this CNP infrastructure would outweigh any residual effects, a matter considered in more detail in chapter 6 of this document.

Site selection and consideration of alternatives

5.2.9. Policy requirements relating to the consideration of alternatives is outlined in Section 4.3 of NPS EN-1. Site selection is considered in Section 2.2 of NPS EN5.

Summary of policy position

5.2.10. Paragraphs 4.3.9 and 4.3.15-16 of NPS EN-1 state that there is no general requirement within the NPS to consider alternatives or establish whether the proposed development is the best option. There are specific circumstances in which legislative frameworks such as the Habitats Directive require alternatives to be considered, and the ES must include information about reasonable alternatives. There are other prescribed circumstances in which policy requires the consideration of alternatives.

5.2.11. Paragraphs 4.3.18-29 of NPS EN-1 set out the decision-making criteria for the SoS where there is a requirement for the consideration of alternatives. Consideration should be proportionate, and only alternative proposals which deliver the same capacity in the same timescales should be considered. Only alternatives which meet the objectives of the proposed development should be considered. Proposals should not be refused because fewer adverse impacts would result from developing similar infrastructure on another suitable site.

5.2.12. Alternatives which were not studied by the applicant in the ES should only be considered if the SoS thinks they are important and relevant to the decision. 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.

5.2.13. NPS EN-3 identifies in section 2.3 that a number of factors may influence site selection and design, recognising that most renewable energy resources can only be developed where that resource exists and is economically feasible. Paragraphs 2.10.19-26 identifies how irradiance, topography and grid connection are key factors for solar farm siting

and commercial viability, noting the need to consider cumulative effects where there may be other energy generating stations in proximity.

5.2.14. NPS EN-5 paragraph 2.2.7 note that it is not necessarily always the case that the cable route should be the most direct, as there will be other factors including engineering and environmental aspects. Paragraph 2.2.1-6 states that siting is not always within the control of the applicant and is determined by the location of new generating stations and system capacity, but that applicants do have control over the routing and site selection. Locational constraints do not exempt candidates from balancing site-selection or good design considerations.

5.2.15. Paragraph 2.6.1 of NPS EN-5 requires applicants to have permission from the landowner, or own or have sufficient rights or interests in the land where the relevant activity is going to take place, in terms of installation, maintenance and removal of grid infrastructure. Voluntary agreements can be sought between the applicant and landowner, or the applicant can seek to acquire rights compulsorily, with permanent arrangements preferred to temporary ones, as set out in paragraphs 2.6.3-6 of NPS EN-5. Compulsory purchase may also be sought.

5.2.16. The flexibility of locating substations should allow the applicant to consider local characteristics and screening and other mitigation options, as required by paragraph paragraphs 2.2.8-9 of NPS EN-5.

5.2.17. DBC Policy ENV3 seeks to protect and improve the character and local distinctiveness of villages and rural areas, while SBC Policy SD5 supports development of an appropriate scale within the countryside where it does not harm its character and appearance. The County Durham Plan Policy 10 only allows development in the countryside if the development is infrastructure where essential need can be demonstrated for that location.

Appraisal of the Proposed Development

5.2.18. ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3) provides an account of the alternatives that have been studied by the Applicant in developing the siting and design of the Proposed Development in accordance with the EIA Regulations. It sets out the main reasons for the Applicant's choices, taking into account environmental, social and economic effects as well as technical and commercial feasibility.

5.2.19. The assessment carried out by the Applicant has met relevant legal requirements and has been carried out in a proportionate manner, recognising the realistic prospect of alternatives; the objectives of the Proposed Development; and the need for commercial and technical viability. It is considered that the information provided in ES Chapter 3 is sufficient to enable the SoS to consider the topic of alternatives in accordance with the guidance provided in the NPS.

5.2.20. ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3) details the steps of the site selection process undertaken by the Applicant in relation to the Proposed Development. This included consideration of irradiance. The north-east region has suitable levels of irradiance to gain a viable yield from current solar panel technology. For this reason, the north-east region was identified as a potential location for solar development by the Applicant within the initial stage of site selection.

5.2.21. The matter of grid connection availability was also a defining factor in early site selection. The Applicant has secured a grid connection for Byers Gill Solar, as detailed in the Grid Connection Statement (Document Reference 7.5). As set out in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3), a secured grid connection has been an important consideration in the early stages of the site selection process for the Proposed Development. The feasible distance of a connection from the existing Norton substation to a solar farm was a consideration in identifying the 'search corridor' within which land for the Proposed Development was initially evaluated.

5.2.22. This further evaluation for site selection considered factors of environmental designation and constraint, including flood risk, landscape designations, agricultural land and other matters. A constraints mapping exercise was undertaken in order to assess potential locations for siting the Proposed Development within the search corridor. In considering the mapped constraints, the Applicant made a high-level judgement on the potential environmental effects of the Proposed Development, taking into account the Applicant's previous experience and values as a responsible developer. Factors such as the spatial extent of constraints in relation to search corridor and the feasibility of deliverable environmental mitigation were considered by the Applicant as part of this evaluation. Further detail regarding this mapping exercise can be found in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3).

5.2.23. Following section of a site and land assembly, the design of the Proposed Development went through several iterations as informed by environmental assessment, technical feasibility and community feedback. This process is also set out in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3) whilst the overall approach to design is provided in the Design Approach Document (Document Reference 7.2).

5.2.24. The consideration of alternatives has also been led by land acquisition. From the outset, the Applicant has sought to deliver the Proposed Development via landowner agreement rather than requiring compulsory acquisition. RWE approached landowners with a sufficient area of land for panel areas, mitigation and enhancement to enter into an option agreement. As set out in the Statement of Reasons (Document Reference 4.1), the Applicant has successfully secured voluntary agreement for the land required for the Panel Areas and is progressing voluntary agreements for the off-road cable routes.

5.2.25. Powers of compulsory acquisition are sought for the preferred option of off-road cable routes to enable their delivery and ongoing maintenance should voluntary agreement not be successful. No powers of compulsory acquisition or temporary possession would be required for the on-road cable within publicly adopted highways. The final cable routes would be identified as part of the detailed design approval process under requirement 3 of the draft DCO (Document Reference 3.1).

5.2.26. Finally, it is recognised that other solar generation development is located in proximity to the site, as well as other forms of development. This is assessed in ES Chapter 13 Cumulative Effects (Document Reference 6.2.13), in which no significant effects are identified arising from cumulative effects of development.

5.2.27. It is concluded that the principle of the Proposed Development is supported in policy. The NPSs identify a strong needs case for CNP infrastructure, such as the Proposed Development, whilst the Applicant has sufficiently demonstrated through the DCO application how alternatives have been studied in developing the proposals.

5.3. Good design

Summary of policy position

5.3.1. Section 4.7 of NPS EN-1 establishes the need for "good design" in energy infrastructure, identifying in paragraphs 4.7.1-4 that implementing good design can:

- Create high quality, inclusive design which is also fit for purpose and sustainable;
- Create sustainable infrastructure which is sensitive to place;
- Be a means through which many NPS policy objectives can be met; and
- Mitigate adverse effects of a project.

5.3.2. Applicants are encouraged to embed good design within a project from the outset, with paragraph 4.7.5 referring to the use of "design principles" to be established to guide the project from conception to operation. Paragraph 4.7.7 requires that applicants demonstrate in their DCO application how the design process was conducted and evolved, and why a favoured choice was selected where different designs were considered.

5.3.3. Paragraphs 4.7.6 and 4.7.10-12 of NPS EN-1 recognise the role of functionality and operational requirements in designing new energy infrastructure, in which the scope of the design approach may be constrained or limited in some respects due to the need for a functional, safe and secure development. However, the benefits of ensuring both functionality and aesthetics are highlighted with regard to ensuring a proposal is sensitive to its location, contributes to the quality of an area where possible and remains durable and adaptable.

5.3.4. NPS EN-3 and NPS EN-5 make reference to principles of good design as set out in NPS EN-1, with the concept underpinning the approach outlined in many policy topics across the NPS suite.

5.3.5. DBC Local Plan policy DC1 also refers to the need for good design across all development, highlighting the role of good design in adaption and mitigation of climate change. Development is required to respond positively to the local context and reflect the local environment. SBC Policy SD8 and Country Durham Plan Policy 29 reflect this, requiring new development to be designed to the highest possible standard in achieving sustainable design.

Appraisal of the Proposed Development

5.3.6. The Design Approach Document (DAD) (Document Reference 7.2) sets out how the Proposed Development has taken into account the criteria of the NPS in relation to good design. It sets out the local context in which the Proposed Development is situated and outlines the design response to that context in seeking to mitigate adverse impacts and integrate good design principles. Recognising the constraints presented by some infrastructure, the DAD identifies how technical considerations have in some instances limited design choices.

5.3.7. ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3) provides an account of the alternatives considered in developing the design of the Proposed Development and the reasons why the selected option was chosen. It demonstrates that good design principles have been incorporated into the approach to the Proposed Development since inception, with early site selection seeking to balance operational and functional needs with the intention to avoid, where possible, sensitive environments and constraints. The iterative approach to design has sought to ensure that changes could be made in response to assessment and feedback to better fit the proposals into the existing context, avoid or reduce adverse effects and deliver enhancement where feasible.

5.3.8. Throughout the design process, changes have been made and implemented into the design of the Proposed Development to avoid or reduce adverse environmental effects and to make the Proposed Development fit better into the wider landscape. These measures and changes are considered essential to the Proposed Development and are termed as 'embedded mitigation'. Embedded mitigation relevant to each ES topic area can be found in ES Chapter 2 The Proposed Development (Document Reference 6.2). On top of this, enhancement measures have been designed into the Proposed Development, with further information regarding these available in the relevant ES Chapters (Volume 6).

5.3.9. To secure the delivery of good design, should development consent be granted, the DAD includes a list of design principles which underpin the Proposed Development which would be required to be retained in the future detailed design. Relating to specific aspects of the infrastructure and the proposals, these principles will ensure the design intention is met and are secured via requirement 3 of the DCO (Document Reference 3.1).

5.3.10. The Applicant has demonstrated how good design has been approached and achieved in the Proposed Development through the Design Approach Document. This has

sought to balance functionality with aesthetic, and reflect, where possible, the local context and understanding. The Proposed Development would be required, via the DCO to be delivered in accordance with these principles. It is therefore considered that the Proposed Development is in compliance with policy relating to good design.

5.4. Agricultural land and land use

5.4.1. Section 5.11 of NPS EN-1 identifies the potential effects of new energy infrastructure on land use, including soil and mineral resources; open space; Green Belt; sports and recreation facilities; allocated or proposed new development; and, contaminated land.

Agricultural land

Summary of policy position

5.4.2. Paragraphs 5.11.12-14 of NPS EN-1 require that applicants seek to minimise impacts on the best and most versatile agricultural land and should seek to minimise effects on soil quality, including through risk of land contamination. Paragraph 5.11.34 of NPS EN-1 requires that the siting of development on best and most versatile (BMV) land is justified, taking into account the economic and other benefits of that land.

5.4.3. Paragraph 5.11.5 of NPS EN-1 requires that where there is pre-existing land contamination, the objective should be to ensure that the site is suitable for its intended use, having undertaken consideration of the contamination in accordance with statutory guidance.

5.4.4. Paragraph 5.11.14 of NPS EN-1 encourages applicants to develop and implement a soil management plan to minimise potential contamination and consider sustainable reuse of soils.

5.4.5. NPS EN-3 considers agricultural land in paragraphs 2.10.29-34. It requires that applicants for solar photovoltaic infrastructure should utilise suitable previously developed land, brownfield land, contaminated land and industrial land where possible. If using agricultural land, this should be demonstrably necessary and use of poorer quality land (avoiding BMV land) should be preferred. It is recognised within NPS EN-3 that the scale of national infrastructure development means that applicants may use agricultural land; site selection should therefore be explained, and consideration should be given to the potential for continued agricultural use or co-location with other functions to maximise efficiency. Paragraphs 2.10.33-34 suggest the use of Agricultural Land Classification (ALC) surveys where necessary and the implementation of a soils and resources management plan.

5.4.6. NPS EN-3 states in paragraphs 2.10.80-81 that Applicants should consider earthworks associated with construction compounds, access roads and cable trenching. Should soil stripping occur, topsoil and subsoil should be stripped, stored, and replaced separately to minimise soil damage and enable restoration.

5.4.7. DBC Local Plan policy IN9 requires that for renewable energy infrastructure, where a proposal involves agricultural land, it should be poorer quality land selected in preference to higher quality, and allows for continued agricultural use and/or biodiversity improvements around solar arrays. This is reflected in SBC Local Plan policy ENV6. The County Durham Plan policy 14 is specific to BMV land and soil resources, and consistent with the above policies, states that development on BMV land will be permitted only where the benefits of the development outweigh the harm. It further requires that sites on undeveloped land must demonstrate soil resources will be managed and conserved in line with best practice.

Appraisal of the Proposed Development

5.4.8. An ALC survey was undertaken of the site, as reported in ES Appendix 9.1 Agricultural Land Classifications and Soil Resources (Document Reference 6.4.9.1) which establishes the ALC grades of land within the Order Limits. It identifies that only 6.1% of land within the Order Limits is currently classified as best and most versatile land (BMV).

5.4.9. As set out in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3), the Applicant has sought to minimise impacts to soil from the outset of the project, with analysis of ALC and the brownfield register informing the early stages of the site selection process. It was not feasible to avoid agricultural land altogether, and use only previously developed land, due to the need to use land within a technically feasible and commercially viable proximity to the available grid connection, and the lack of available brownfield land in this vicinity. However, it is considered that the overall low proportion (6.1%) of BMV land within the Order Limits is justified within the context of the overall benefits presented by the Proposed Development, and its clearly established national need, as set out within this document. Furthermore, the Applicant has sought to make efficient use of land through co-location of battery storage in the Proposed Development and has, in line with local policy, sought to ensure that a significant biodiversity net gain (anticipated to be 88% habitat units for biodiversity and 108% of hedgerow habitats) is delivered, in part through planting around the solar arrays.

5.4.10. The impact on soil is outlined in ES Chapter 9 Land use and Socioeconomics (Document Reference 6.2.9). There is predicted to be a moderate adverse effect on soil resources during construction, with a moderate beneficial effect on soil resources at decommissioning due to improved soil health. ES Appendix 2.12 Outline Soil Resources Management Plan (Document Reference 6.4.2.12) sets out a framework for management of soil resources during construction of the Proposed Development. It is secured via requirement 10 of the draft DCO (Document Reference 3.1) and has been developed in line with best practice.

5.4.11. In relation to land contamination, ES Appendix 2.1 Phase 1 Geoenvironmental and Geotechnical Desk Study (Document Reference 6.4.2.1) reports on the desk study undertaken for the site and identifies that contamination potential is very low to low. Further ground investigations prior to be undertaken post-consent are secured via the

ES Appendix 2.6 Outline Construction Environmental Management Plan (CEMP) (Document Reference 6.4.2.5).

Land use

Summary of policy position

5.4.12. Paragraph 5.11.11 of NPS EN-1 requires that via pre-application discussions with the applicant, the LPA should identify any concerns it has regarding land use, with regard to the development plan and relevant applications.

5.4.13. Paragraphs 5.11.20-22 and Paragraph 5.11.32 of NPS EN-1 set out policy relating to sites located in the Green Belt or on existing open space, sports and recreational land.

5.4.14. Paragraph 5.11.9 of NPS EN-1 require that applicants safeguard any mineral resources on the proposed site as far as possible. Paragraph 5.11.28 of NPS EN-1 require that if a proposed development has an impact on a Mineral Safeguarding Area (MSA), appropriate mitigation measures must be in place to safeguard mineral resources.

5.4.15. Tees Valley Joint Minerals and Waste DPD policy MC4 requires that within minerals safeguarding areas, non-minerals development will only be permitted where it does not sterilise or prejudice future extraction of the resource; extracts the mineral prior to development; or, the need for the development demonstrably outweighs the need for the mineral resource.

Appraisal of the Proposed Development

5.4.16. The Order Limits of the Proposed Development do not include land that is Green Belt, existing open space or sports/recreational land. As confirmed in ES Chapter 9 Land use and Socioeconomics (Document Reference 6.2.9), no development plan allocations are located within the Order Limits. The Proposed Development is therefore compliant with these aspects of policy.

5.4.17. As reported in ES Chapter 9 Land use and Socioeconomics (Document Reference 6.2.9), parts of the Proposed Development are situated within DBC's Minerals Safeguarding zones for limestone (Shallow) as identified through the Joint Minerals and Waste Plan, and therefore has the potential to impact the identified resource. Part of Panel Areas C and D have the potential to affect this safeguarded limestone mineral resource. Construction of the Proposed Development would temporarily sterilise the mineral resource, although the resource would remain in situ and could be extracted following decommissioning of the Proposed Development. The magnitude of impact on the limestone mineral resource is therefore considered to be low, which when combined with a medium sensitivity would lead to a minor adverse effect which is not significant.

5.4.18. Following a request at Scoping, the Applicant has engaged with DBC who have confirmed that they are not aware of any plans to extract the limestone resource during the Proposed Development and that there are no current or extant permissions

to extract the resource within the Order Limits. They also agreed that given the temporary nature of the Proposed Development, this would not sterilise the resource which could still be extracted in the future.

5.4.19. It is therefore considered that the Proposed Development is compliant with national policy regarding mineral resources and the Tees Valley Joint Minerals and Waste DPD.

5.4.20. It is concluded that Proposed Development is compliant with relevant policy relating to agricultural land and land use. The Applicant is able to demonstrate that efforts have been made to avoid BMV land through site selection and design iteration, with a small overall proportion of just over 6% BMV land within the Order Limits. Adverse effects to soil are expected temporarily, with an overall improvement following decommissioning. No policy compliance issues relating to land use are identified, with agreement reached with the relevant planning authority that the Proposed Development would not permanently or significantly affect mineral resources.

5.5. Air quality

Summary of policy position

5.5.1. Paragraphs 5.2.1-18 of NPS EN-1 set out the potential for adverse impacts on air quality through emissions from the construction, operation and decommissioning phases of energy infrastructure development, with a focus on health, on protected species and habitats, and on the wider countryside. Paragraphs 5.2.1-3 of NPS EN-1 define air emissions as including particulate matter (including dust) of diameters up to PM10 and PM2.5, as well as gases such as sulphur dioxide, carbon monoxide and nitrogen oxides (NOx).

5.5.2. Paragraph 5.2.2 of NPS EN-1 refer to legal limits for ambient air set out in in the Air Quality Standards Regulations 2010 and for England, national objectives set out in the Air Quality (England) Regulations 2000 reiterated in the Air Quality Strategy.

5.5.3. Paragraph 5.2.3 of NPS EN-1 requires that energy infrastructure schemes consider not just how a scheme may impact statutory air quality limits, objectives, or targets, but also identify measures to mitigate all emissions in order to minimise human exposure to air pollution.

5.5.4. Paragraphs 5.2.8-9 of NPS EN-1 provide the requirements for the ES in undertaking an assessment of effects of a development on air quality. This includes describing such the existing air quality and identifying any significant air quality effects, proposed mitigation, and any residual effects.

5.5.5. Paragraphs 5.2.10-11 of NPS EN-1 requires consideration of Environment Targets (Fine Particulate Matter) (England) Regulations 2022 and associated Defra guidance. Defra publishes future national projections of air quality based on estimates of future levels of emissions, traffic, and vehicle fleet, which applications must be consistent with. Paragraphs 5.2.12-14 of NPS EN-1 provide requirements for proposed developments

that are likely to lead to a breach of any relevant statutory air quality limit, objective or target, or affect the ability of a noncompliant area to achieve compliance.

5.5.6. Paragraphs 5.2.13-19 of NPS EN-1 requires substantial weight to be given to air quality considerations by the SoS. It requires that all cases, the SoS must take account of any relevant statutory air quality limits, objectives, and targets. If a project will lead to non-compliance with a statutory limit, objective or target, the SoS should refuse consent. A construction management plan may be required to help codify mitigation at the application stage. Additionally, it directs that the SoS will have regard to the Air Quality Strategy in England (and any successor) and should consider relevant advice within Local Air Quality Management guidance and PM2.5 targets guidance.

Appraisal of the Proposed Development

5.5.7. As set out in ES Chapter 4 Approach to EIA (Document Reference 6.2.4), the topic of air quality has been scoped out of the EIA due to the limited emissions anticipated during construction, operation and decommissioning of the Proposed Development. ES Appendix 2.4 Construction Dust Assessment (Document Reference 6.4.2.4) concludes that the Proposed Development would result in a negligible effect through dust-generating activities and that air quality and construction dust should not be a material consideration for the Proposed Development. The Construction Dust Assessment identifies mitigation measures to avoid or minimise any potential for air pollution during construction and decommissioning activities. These are secured via ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.5) and ES Appendix 2.7 Decommissioning Environmental Management Plan (DEMP) (Document Reference 6.4.2.6) and requirements 4 and 5 of the draft DCO (Document Reference 3.1) respectively.

5.5.8. With regard to paragraphs 5.2.12-14 of NPS EN-1, the Proposed Development is considered unlikely to lead to a breach of any relevant statutory air quality limit, objective or target, or affect the ability of a noncompliant area to achieve compliance

5.5.9. It is concluded that, in resulting in a negligible overall effect, the Proposed Development is in accordance with policy relating to air quality and emissions.

5.6. Aviation (glint and glare)

Summary of policy position

5.6.1. Paragraphs 5.5.49-50 of NPS EN-1 require that an assessment of impact of a proposed development on meteorological radars, civil and military aerodromes, aviation technical sites and other defence assets or operations should be undertaken.

5.6.2. Paragraph 2.10.27 of NPS EN-3 refers to utility-scale solar farms, defining two main impact issues of visual amenity and glint and glare. Paragraph 2.1.102-106 of NPS EN-3 describes the scenarios in which solar panels may cause glint and glare, and their potential impact of receptors. Applicants are required to map receptors to qualitatively

identify potential glint and glare issues and determine if a glint and glare assessment is necessary. Paragraphs 2.10.134-136 of NPS EN-3 provides advice on the need for anti-glare or anti-reflective coating for solar panels and screening between potentially affected receptors and reflecting panels to mitigate the effects.

5.6.3. Paragraphs 2.10.158-159 of NPS EN-3 provides further advice on the potential impact of glint and flare on receptors such as nearby homes, motorists, PRoWs, aviation infrastructure, and aircraft safety. The SoS is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms.

5.6.4. DBC Local Plan Policy IN5 Airport Safety provides guidance on a 15km radius of critical airspace safeguarding area surrounding the airport, stating that relevant development proposals will require consultation with the operator of the airport, and must consider the operational integrity of the airport, its surveillance systems, and the safety of air traffic services, in accordance with Government Circular 1/2003, or any successor guidance. SBC Local Plan Policy EG5 Durham Tees Valley Airport mirrors DBC Local Plan Policy IN5.

5.6.5. DBC Local Plan Policy IN9 Renewable Energy Infrastructure (Strategic Policy) provides guidance on renewable and low carbon energy development, which will be supported where proposals are in accordance with relevant criteria. Part vi) of the criteria requires that proposals have adequately mitigated the visual impact on the landscape and the effect of glint and flare on neighbouring uses and aircraft safety.

Appraisal of the Proposed Development

5.6.6. A glint and glare assessment has been undertaken and is provided in ES Appendix 2.2. Solar Photovoltaic Glint and Glare Study (Document Reference 6.4.2.2). It identifies that a moderate impact is predicted on three sections of road and ten dwellings, however with the planting and operational maintenance of that planting, as secured via the DCO, the impact would be reduced to low/none. One active airfield has been identified for the assessment; this is Teesside International Airport, a licensed aerodrome located south of the Proposed Development area, within 10km. The assessment confirms that no impacts are predicted on aviation activity associated with Teeside International Airport because solar reflections are not geometrically possible towards the ATC Tower or the last two miles of the approach path toward runway 5 or 23.

5.6.7. It is concluded that the Proposed Development would result in no effects relating to aviation and glint and glare, and is therefore compliant with policy.

5.7. Biodiversity and Biodiversity Net Gain

Overarching policies

Summary of policy position

5.7.1. Sections 4.6 and 5.4 of NPS EN-1 set out policy relating to biodiversity and geological conservation.

5.7.2. Paragraphs 4.6.1-2 of NPS EN-1 identifies the relationship between environmental net gain and biodiversity net gain, identifying that projects should not only avoid, mitigate and compensate harms following the mitigation hierarchy, but also consider opportunities for enhancements. Paragraph 4.6.7 encourages use of the latest version of the biodiversity metric to calculate Biodiversity Net Gain (BNG) outcomes.

5.7.3. Paragraph 5.4.17 of NPS EN-1 requires the ES to set out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, irreplaceable habitats, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. Paragraph 5.4.19 of NPS EN-1 requires the applicant to show how the project has taken advantage of opportunities to conserve and enhance biodiversity and geological conservation interests. NPS EN-1 states in paragraph 5.4.21 that the design process should embed opportunities for nature inclusive design, noting the potential to go beyond BNG..

5.7.4. Paragraphs 5.4.39, 41 and 43 of NPS EN-1 set out the government's biodiversity strategy. They note that the benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests which may outweigh harm to these interests, and that the SoS may take account of net benefit. If significant harm to biodiversity cannot be avoided, mitigated, or, as a last resort, compensated for, then the SoS will give significant weight to any residual harm and consent may be refused.

5.7.5. Paragraph 5.4.46 of NPS EN-1 notes the opportunities to build-in beneficial biodiversity or geological features as part of good design. Appropriate weight should be given to environmental and biodiversity enhancements, but that this is likely to be limited for gains provided to meet a legal requirement (for example under the Environment Act 2021).

5.7.6. Paragraph 5.4.48 of NPS EN-1 requires decision makers to attach appropriate weight to designated sites, habitats, species of principal importance, and to biodiversity and geological interests within the wider environment.

5.7.7. NPS EN-1 also advises the SoS in paragraphs 5.4.44, 47, 49 and 50 to consider appropriate requirements or planning obligations to ensure mitigation or BNG is delivered and maintained, which should generally be for a minimum of 30 years or the project lifetime, if longer. Requirements and obligations could also be used to maximise

reasonable opportunities in and around developments, and to mitigate any harmful aspects of development on sites which are part of the National Site Network, protected marine sites, or sites which receive the same protection.

5.7.8. NPS EN-3 outlines in paragraphs 2.10.75-79 the need for applicants to undertake ecological assessments of risk from developing the site, using an advising ecologist to ensure adverse impacts are avoided, minimised or mitigated in line with the mitigation hierarchy, and biodiversity enhancements are maximised. Issues that need assessment may include habitats, ground nesting birds, wintering and migratory birds, bats, dormice, reptiles, great crested newts, water voles and badgers. The assessment could include a 'desk study', an evaluation of the likely impacts and should specify mitigation and further surveys required.

5.7.9. Paragraphs 2.10.82-83 of NPS EN-3 require applicants to consider:

- The impacts of security and lighting on ecology, with the location of pole mounted CCTV facilities considered carefully and lighting minimised and directed away from possible habitats.
- How site boundaries are to be managed, such as surveys should hedges/scrub be removed, buffer strips, and fencing which allows fauna access if required by the ecological report.

5.7.10. NPS EN-3 notes in paragraphs 2.10.89-90 that solar farms can increase biodiversity beyond BNG, particularly if a site was previously intensively managed, and this is encouraged. Applicants should consider enhancement, management, and monitoring of biodiversity in line with the ambition set out in the Environmental Improvement Plan and any relevant measures and targets, including statutory targets set under the Environment Act or elsewhere.

5.7.11. DBC Local Plan Policies DC1 and DC3 requires the proposals, green infrastructure and landscaping to complement and enhance the natural environment. Policy ENV4 protects green and blue infrastructure, which development may be required to improve and extend to meet the ambition of open spaces and enhancement of biodiversity. Development is also required to improve local water quality. Policy ENV5 requires major development to deliver new, multi-functional blue-green infrastructure, with arrangements for management. Policy ENV7 disallows development which would result in significant adverse effects on biodiversity and geodiversity which cannot be mitigated or compensated for. Policy ENV8 requires development to provide net gains in biodiversity and identify how harm to sites of biodiversity importance has been avoided or mitigated. Policy IN9 requires renewable energy development to allow for continued agricultural use where applicable and encourages biodiversity improvements.

5.7.12. SBC Local Plan Policy SD5 requires the conservation and enhancement of the natural environment, including through the protection of designated sites and green infrastructure assets. Policy SD8 also outlines the need to protect and enhance ecological and green infrastructure networks and assets. Proposals which enhance nature conservation, preserve the character of the natural environment and maximise

opportunities for biodiversity and geological conservation are supported through Policy ENV5. The Policy also requires proposals seek net gains in biodiversity, with adverse effects avoided; habitat creation should consider existing habitats and species. Policy ENV6 supports the enhancement, creation and management of green infrastructure. SBC Sustainable Design Guide SPD Section 4.11 also highlights the importance of green infrastructure, including habitats trees and hedges, and the requirement to provide planting plans.

5.7.13. County Durham Plan Policies 10 and 41 prevents development from causing unacceptable harm to the biodiversity and geodiversity of the countryside, individually or cumulatively, requiring avoidance, mitigation, or as a last resort, compensation. Development should maintain, protect and improve green infrastructure, with provision for long-term management and maintenance, as outlined in Policy 26.

Appraisal of the Proposed Development

5.7.14. ES Chapter 6 Biodiversity (Document Reference 6.2.6) provides an assessment of 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. It concludes that there would be no significant effects arising from the Proposed Development.

5.7.15. This assessment and the design of the Proposed Development have been informed by desk-based data analysis and site surveys, including:

- a UK habitat survey (ES Appendix 6.1/Figure 6.1 – Document Reference 6.4.6.1 and 6.3.6.1 respectively)
- wintering bird surveys (ES Appendix 6.2, Document Reference 6.4.6.2)
- breeding bird surveys (ES Appendix 6.3, Document Reference 6.4.6.3) and;
- bat surveys (ES Appendix 6.4, Document Reference 6.4.6.4).

5.7.16. Mitigation and enhancement have been developed in an iterative process taking into account the results of the environmental assessment, with ecologists informing and advising on the design of the Proposed Development. A principle of the Applicant in developing the design of the Proposed Development has been to seek to avoid significant harm to the environment including biodiversity and geological conservation. ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3) sets out how environmental designations and constraints were considered as part of the site selection process.

5.7.17. ES Chapter 6 Biodiversity (Document Reference 6.2.6) and ES Chapter 2 The Proposed Development (Document Reference 6.2.2) identifies a range of mitigation and enhancement measures that would be delivered through the Proposed Development during construction, operation and decommissioning, and would also contribute to the delivery of substantial biodiversity net gain. This includes:

- habitat creation and management;
- new and improved native-species-rich hedgerows and hedgerow trees;
- reduced cutting along existing hedgerows to benefit nesting birds and invertebrates;
- enhancement of field margins; and
- sowing of land under and between Panel Areas with a legume rich mix or flower rich grassland mix.

5.7.18. In accordance with both national and local policy, the Proposed Development will contribute to delivery of nature-based solutions to climate adaptation by providing a predicted 88% net gain in habitat biodiversity units and a 108% net gain in hedgerow biodiversity units. This is reported in ES Appendix 6.6 Biodiversity Net Gain Report (Document Reference 6.4.6.6). The ongoing maintenance of proposed planting and habitat creation is detailed in the Outline LEMP (Document Reference 6.4.2.14) and secured via requirement 12 of the draft DCO (Document Reference 3.1). This would exceed the minimum 30-year requirement, providing maintenance for the full 40-year operation of the Proposed Development. The BNG calculations were shared with Natural England on 11 January 2024 in advance of the DCO application being submitted, following earlier discussions and engagement with Natural England relating to the Proposed Development. Natural England confirmed in response that it welcomes the aspiration of the Applicant to deliver well over the 10% mandated BNG for NSIPs (to be in effect from 2025).

5.7.19. Noting the considerations required in NPS EN-3 under paragraphs 2.10.82-83:

- CCTV to be installed along the security fencing associated with the onsite substation and energy storage system would utilise infrared technology. The CCTV cameras would be no taller than the solar panels and included within the panel fields. There is no permanent lighting proposed as part of the Proposed Development, except for the localised emergency security lighting in proximity to the substation and energy storage systems. Such lighting would be triggered by movement only or manually turned on, and so would not be active for all hours of darkness.
- Site boundaries have been considered in developing the Environmental Masterplan (Document Reference 2.5). Construction activities are predicted to result in the potential for the loss of 0.15km of hedgerow as a result of grid connection cables and access routes. Whilst the extent of any loss of this habitat is currently unknown, the majority of hedgerows across the Proposed Development will be avoided with the hedgerows to be affected of poor quality. Sections of hedgerow to be removed will be reinstated and replanted with native species elsewhere within the Order Limits. This will result in a hedgerow creation forecast of 11.73 km and hedgerow enhancement of 28.89 km (and overall anticipated net gain of 108% biodiversity units relating to hedgerows). A buffer of a minimum of 8m between Panel Areas and boundary features would be provided and is secured via the DCO.

5.7.20. Following Policy IN9 from DBC's Local Plan, ES Appendix 9.1 Agricultural Land Classifications and Soil Resources (Document Reference 6.4.9.1) identifies that only 6.1% of land within the Order Limits is best and most versatile land (BMV).

Designated biodiversity sites

Summary of policy position

5.7.21. NPS EN-1 states in paragraph 5.4.4-5 that the most important sites for biodiversity are those identified through international conventions, noting that the Habitats Regulations set out the sites for which an HRA will be required, and that the same protection will be given to potential Special Protection Areas (pSPA), possible Special Areas of Conservation, listed or proposed Ramsar sites, and sites identified, or required, as compensatory measures for adverse effects on the above sites.

5.7.22. Paragraphs 5.4.25-28 of NPS EN-1 set out the process an applicant must follow in considering whether a project may have a significant effect on habitat sites. The process requires that advice is sought from the appropriate Statutory Nature Conservation Bodies (SNCB) to determine whether a Habitats Regulations Assessment (HRA) Appropriate Assessment is required and the steps to be followed to minimise or avoid likely significant effects.

5.7.23. Paragraphs 5.4.7-8 of NPS EN-1 note that SSSIs are also mostly designated as sites of international importance, but where they are not covered by an international designation, they should be given a high degree of protection. Most National Nature Reserves are notified as SSSIs. Where development would have an adverse effect on an SSSI, consent should not be granted. If the benefits of development, including need, outweigh the impact on SSSIs, consent may be granted.

5.7.24. DBC Local Plan Policy ENV7 prevents development which would have an adverse effect on SSSIs, unless the benefits outweigh the impacts. SBC Local Plan Policy ENV5 protects designated sites and sets out the hierarchy for assessing development proposals, with internationally designated sites requiring HRA Appropriate Assessment, adverse effects on national and local sites not usually allowed. County Durham Plan Policies 42 and 43 sets out the position regarding designated sites, with development which would cause adverse effects only allowed if the benefits outweigh the impacts, and mitigation is provided. International sites will require a HRA Appropriate Assessment.

5.7.25. Paragraphs 5.4.12-13 of NPS EN-1 sets the expectation for plans to identify and map Local Wildlife Sites (LWS) and to include policies that not only secure their protection from harm or loss but also help to enhance them and their connection to wider ecological networks. Paragraph 5.4.52 of NPS EN-1 states that decision makers should give due consideration to regional and local designations. However, given the need for new infrastructure, these designations should not be used in themselves to refuse development consent, although development should still comply with the biodiversity and geological conservation requirements in the NPS. Darlington Local Plan Policy

ENV7 requires development to provide sufficient mitigation to avoid significant harm to the Borough's Local Nature Reserves and Local Wildlife Sites.

Appraisal of the Proposed Development

5.7.26. There are four internationally designated sites within 10 km of the Order Limits. These are:

- Teesmouth and Cleveland Coast Special Protection Area (SPA);
- Teesmouth and Cleveland Coast Ramsar;
- Teesmouth and Cleveland Coast proposed Ramsar; and
- Thrislington Special Area of Conservation (SAC)

5.7.27. ES Appendix 6.5 Habitats Regulations Assessment No Significant Effects Report (Document Reference 6.4.6.5) has been prepared to carry out Stage 1 (Screening) of the HRA process. Stage 1 identifies any likely impacts upon a European site of a project (either alone or in combination). Mitigation cannot be taken into consideration at Stage 1 of the HRA. The HRA Screening Assessment concludes that No Likely Significant Effects have been identified, and therefore no further Habitats Regulations Assessment is required and it is considered compensation is not required. No concerns have been raised by Natural England regarding the conclusions of the HRA screening exercise undertaken by the Applicant. This is reflected in the Potential Main Issues for Examination (PMIE) (Document Reference 7.6).

5.7.28. There are four SSSIs within 2km of the Order Limits. These are

- Briarcroft Pasture sites of Special Scientific Interest (SSSI)
- Whitton Bridge Pasture SSSI;
- Redcar Field SSSI
- Newton Ketton Meadow SSSI

5.7.29. ES Chapter 6 Biodiversity (Document Reference 6.2.6) concludes that any effects on the four SSSI sites as a result of the Proposed Development would be negligible and therefore not significant.

5.7.30. There are two Local Nature Reserves (LNR) within 2km of the Order Limits; Hardwick Dene and Elm Tree Woods LNR and Stillington Forest Park LNR. There are two Local Wildlife Sites (LWS) within 1 km of the Order Limits, Carr House Pond LWS and Wynyard Woodland Park Stockton LWS.

5.7.31. ES Chapter 6 Biodiversity (Document Reference 6.2.6) concludes that there would be no significant effects on the LNRs or LWS as a result of the Proposed Development. ES Figure 6.1 Designated Sites (Document Reference 6.3.6.1) depicts the LWS and LNRs considered in ES Chapter 6 Biodiversity (Document Reference 6.2.6).

Ancient woodland, veteran trees and other irreplaceable habitats

Summary of policy position

5.7.32. NPS EN-1 states in paragraph 5.4.15 that ancient woodland is a valuable biodiversity resource, noting the government's policy to maintain and enhance ancient woodland, that ancient and veteran trees found outside of woodland are also valuable, and the other types of irreplaceable habitat. Paragraphs 5.4.32 and 53 of NPS EN-1 requires measures to mitigate fully the direct and indirect effects of development on these features. Loss or deterioration of these features is only allowable for wholly exceptional reasons and requires a suitable compensation strategy.

5.7.33. DBC Local Plan Policy ENV7 expects development to retain existing woodlands, unless the benefits outweigh the loss and replanting and compensation can be undertaken. SBC Local Plan Policy ENV5 protects trees, woodland and hedgerows which are important to the character and appearance of an area, with unavoidable loss requiring appropriate replacement. County Durham Plan Policy 40 prevents development which result in the loss of or damage to trees or hedgerows of high value unless benefits outweigh the harm. Existing features should be retained or replaced.

Appraisal of the Proposed Development

5.7.34. As confirmed in ES Appendix 7.7 Arboricultural Impact Assessment (Document Reference 6.4.7.7), there is no ancient woodland with potential to be affected by the Proposed Development. Where veteran trees have been identified, a buffer of 15 times the stem diameter has been established as a construction exclusion zone around them. This is depicted in Appendix B Tree Protection Plan of ES Appendix 7.7 Arboricultural Impact Assessment (Document Reference 6.4.7.7) and will be secured through ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.5) and requirement 4 of the draft DCO (Document Reference 3.1).. In total 7 trees are required to be removed to facilitate the Proposed Development, none of which are veteran trees.

Protection of habitats and other species

Summary of policy position

5.7.35. Species and habitats identified as being of principal importance for the conservation of biodiversity are covered in paragraphs 5.4.16, 33, 34, 54 and 55 of NPS EN-1. They state that decision makers should ensure these are protected from adverse effects using requirements and planning obligations, and that consent should be refused, unless the benefits outweigh the harm and other legal tests are met. Substantial weight should be given to any harm.

5.7.36. NPS EN-1 requires applicants to consider reasonable opportunities to maximise the restoration, creation and enhancement of biodiversity, including habitats which can store or sequester carbon. It notes that consideration should be given to improvements to, and impacts on, habitats and species in, around and beyond

developments, for wider ecosystem services and natural capital benefits, beyond those under protection and identified as being of principal importance.

5.7.37. Paragraph 5.4.35 of NPS EN-1 requires mitigation, compensation and enhancement measures as an integral part of the proposed development. The applicant should demonstrate that:

- construction activities will be confined to the minimum areas required for the works;
- best practice will be followed to minimise the risk of disturbance or damage to species or habitats, including as a consequence of transport access arrangements;
- habitats will, where practicable, be restored after construction works have finished;
- opportunities will be taken to enhance existing habitats and, where practicable, to create new habitats of value within the site landscaping proposals;
- where habitat creation is required as mitigation, compensation, or enhancement the location and quality will be of key importance. Habitat creation should be focused on areas where the most ecological and ecosystems benefits can be realised; and
- mitigations required as a result of legal protection of habitats or species will be complied with.

5.7.38. NPS EN-1 states in paragraph 5.4.47 that the SoS should attach requirements or planning obligations as appropriate. The SoS will need to take account of mitigation measures agreed with the relevant bodies, such as Natural England, and whether or not these bodies have refused or granted any licences, as outlined in paragraph 5.4.45 of NPS EN-1.

5.7.39. NPS EN-1 states in paragraph 5.4.36 that applicants should produce and implement a Biodiversity Management Strategy, which could include biodiversity awareness training for employees and contractors. A Geodiversity Management Strategy should also be produced as notes in paragraph 5.4.38. Paragraph 5.4.22 also requires consideration of mobile / migratory species.

5.7.40. DBC Local Plan Policy ENV7 requires development to avoid or mitigate adverse impacts on BAP priority or protected species, and enhance the quality, extent and mix of priority and protected habitats and species identified on the NERC list. These enhancement measures must be compatible with existing ecosystems. The reinstatement of traditional species rich field margins, hedgerows and trees and promotion of mixed habitats is supported. SBC Local Plan Policy ENV5 supports the preservation, restoration and recreation of priority habitats and species.

Appraisal of the Proposed Development

5.7.41. ES Chapter 6 Biodiversity (Document Reference 6.2.6) sets out the surveys and site appraisal work that have been undertaken to identify species and habitats within the study area of the Proposed Development. This includes woodland and watercourse

habitat, non-breeding (wintering) birds, breeding birds, bats and badgers. Taking into account mitigation measures, ES Chapter 6 Biodiversity (Document Reference 6.2.6) concludes that there would be no significant effects to any habitats or species identified in the assessment during the construction, operation or decommissioning of the Proposed Development. Requirements for additional licenses or consents pursuant to separate legislation is set out in Other Consents and Licenses (Document Reference 7.3).

5.7.42. A range of mitigation measures have been included in the Proposed Development, comprising of both measures embedded within its design and as measures that would be implemented during construction, operation or decommissioning of the Proposed Development. The measures are detailed in ES Chapter 2 The Proposed Development (Document Reference 6.2.2) and ES Chapter 6 Biodiversity (Document Reference 6.2.6) and would be secured via the draft DCO (Document Reference 3.1) under the following management plans:

- ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.6)
- ES Appendix 2.14 Outline LEMP (Document Reference 6.4.2.14)
- ES Appendix 2.7 Outline DEMP (Document Reference 6.4.2.7)
- Appendix 2.11 Outline Soil Resources Management Plan (Document Reference 6.4.2.11)

5.7.43. ES Chapter 6 Biodiversity (Document Reference 6.2.6) and ES Chapter 2 The Proposed Development (Document Reference 6.2.2) identifies a range of enhancement measures that would be delivered through the Proposed Development in relation to habitats and species. This includes:

- habitat creation and management;
- new and improved native-species-rich hedgerows and hedgerow trees;
- reduced cutting along existing hedgerows to benefit nesting birds and invertebrates;
- enhancement of field margins; and
- sowing of land under and between Panel Areas with a legume rich mix or flower rich grassland mix.

5.7.44. Pre-application engagement with Natural England has been undertaken to discuss matters relevant to their regulatory function. This is reflected in the Potential Main Issues for Examination (PMIE) (Document Reference 7.6), in which it is identified that Natural England has no concerns at this stage relating to proposed mitigation measures. The status of any permits, consents and licenses required is set out in Other Consents and Licenses (Document Reference 7.3). Natural England has not raised any concerns regarding the future granting of relevant consents and licenses, with a provisional certificate relating to great crested newt (GCN) licensing issued prior to DCO application.

5.7.45. It is concluded that the Proposed Development is in compliance with policy relating to biodiversity and biodiversity net gain. As reported in ES Chapter 6 Biodiversity (Document Reference 6.2.6) and its supporting appendices, there would be no significant adverse effects to designated sites; habitats and species; or irreplaceable habitats as a result of the Proposed Development. The assessment reported in ES Chapter 6 has been informed by relevant site surveys and has informed the overall landscape design and the management measures secured via the Outline LEMP (Document Reference 6.2.4.14) for the lifetime of the Proposed Development. The implementation of the Proposed Development is anticipated to deliver substantial biodiversity net gain of approximately 88% for habitats, and 108% for hedgerows as part of a suite of enhancements designed into the proposed development.

5.8. Climate change and adaptation

5.8.1. Section 4.10 of NPS EN-1 outlines the requirements for new energy infrastructure development to be adaptable to climate change. Section 5.3 also sets out the need for new development to minimise greenhouse gas emissions.

5.8.2. This topic is also referenced in other sections of NPS EN-1. Section 5.4 of NPS EN-1 covers biodiversity and geological conservation, noting that this can be negatively impacted as a result of climate change. Sections 5.6 and 5.8 also consider this regarding coastal change and flood risk respectively, and the need for development to be resilient to climate change.

Climate change adaption and resilience

Summary of policy position

5.8.3. Paragraphs 4.10.1-3 of NPS EN-1 set out the risks and effects of climate change and the associated importance for new energy infrastructure to be resilient to these effects. Paragraph 4.10.5 of NPS EN-1 notes that climate change adaptation measures themselves can give rise to additional impacts. Paragraph 4.10.8 of NPS EN-1 states the aspects for which the direct and indirect impacts of climate change should be considered within the applicant's assessment, these include: location, design, build, operation and decommissioning.

5.8.4. Paragraphs 4.10.12-15 of NPS EN-1 set out the requirement to use the latest climate change projections and a high emissions scenario when assessing the impacts of climate change. Should adaptation measures give rise to consequential impacts, the implementation of these measures could be delayed until the need arises, and this impact should be considered in relation to the application as a whole during the decision-making process, as set out in paragraphs 4.10.16-19 in NPS EN-1.

5.8.5. NPS EN-1 requires applicants to maximise the use of nature-based solutions in paragraphs 4.10.5-7, noting the benefits of integrated approaches such as biodiversity net gain and carbon sequestration. Paragraphs 4.10.9, 10, 11 and 14 of NPS EN-1 outline how the ES should account for the impacts of climate change, this includes:

using government guidance and industry standard benchmarks for the assessment; making the assessment using a range of climate change scenarios; demonstrating that proposals will have a high level of climate resilience; demonstrating will be adaptable throughout their lifetimes to be resilient to a credible maximum climate change scenario.

5.8.6. Paragraph 2.4.11 of NPS EN-3 notes that solar energy development will need to consider resilience to the increased risk of flooding and impact of higher temperatures as a result of climate change.

5.8.7. DBC Local Plan policy DC1 notes that good design will help to reduce carbon emissions and increase resilience to the impacts of climate change, while policy DC2 states the expectation for development to be designed to mitigate and adapt to climate change. The SBC Local Plan policy SD5 requires development to be adaptable to and minimise the effects of climate change. The County Durham Plan policy 10 requires new development in the countryside to minimise vulnerability and provide resilience to the impacts of climate change. Policy 26 states that new development should incorporate green infrastructure which contributes to climate change objectives, and policy 35 expects development to account for the predicted impacts of climate change.

Appraisal of the Proposed Development

5.8.8. ES Chapter 5 Climate Change (Document Reference 6.2.5) provides an assessment of the Proposed Development in relation to its effects on climate, and its resilience to the effects of climate change. Resilience to impacts from climate change is specifically assessed within ES Appendix 5.2 Climate Change Resilience (CCR) Assessment (Document Reference 6.4.5.2). It concludes that all risks identified are of a low or very low risk rating, resulting in no significant effects of the Proposed Development, taking into account proposed mitigation.

5.8.9. The chapter also sets out the methodology employed for assessing the likely significant effects of climate change on the construction, operational and decommissioning phases of the Proposed Development. It confirms that the climate change risk assessment provided in ES Appendix 5.2 CCR (Document Reference 6.4.5.2) is based on future projected climate conditions and extreme weather events for the time periods 2020s to 2070s, covering the construction phase following the discharge of the DCO requirements and an operational phase of at least 40 years. These have been based on the Met Office UK climate projections 2018 (UKCP18), the most recent and comprehensive climate change projections for the UK. ES Appendix 5.2 specifically considers the resilience of the Proposed Development to extreme weather and projected future climate change impacts. Chapter 5 also sets out that a high emissions scenario Representative Concentrations Pathway 8.5 has been applied under the assessment methodology.

5.8.10. As set out in ES Chapter 5 Climate Change (Document Reference 6.2.5) and ES Chapter 2 The Proposed Development (Document Reference 6.2.2), measures are embedded into the design of the Proposed Development to enable resilience to the

effects of climate change during construction and operation. During construction, these include:

- using equipment's cooling systems where necessary/adapting working practices and equipment used based on current weather conditions;
- protecting workers and resources from extreme weather conditions; and
- monitoring weather forecasts and the news for Environment Agency flood warnings, relevant weather warnings, and water levels of the local waterways.

5.8.11. During operation, measures include:

- BESS systems would include heating, ventilation and cooling (HVAC) systems and these would be contained within the individual equipment containers.
- all critical infrastructure is located outside of the Flood Zones, and there are no permanent buildings within the Proposed Development;
- ES Appendix 10.1 Flood Risk Assessment (FRA) and Drainage Strategy (Document Reference 6.4.10.1) has included a number of adaptation measures that would be considered in the detailed design and operations management;
- there will be an 8m buffer around all mapped watercourses that cross the Proposed Development;
- monitoring weather forecasts and the news for Environment Agency flood warnings, relevant weather warnings, and water levels of the local waterways during maintenance activities; and
- ES Appendix 2.14 Outline LEMP (Document Reference 6.4.2.14) outlines mitigation for landscape and habitat features impacted by low rainfall.

5.8.12. The Proposed Development will contribute to delivery of nature-based solutions to climate adaptation by providing an anticipated 88% net gain in habitat biodiversity units and a 108% net gain in hedgerow biodiversity units, as required by NPS EN-1 paragraphs 4.10.5-7.

Greenhouse gas emissions

Summary of policy position

5.8.13. NPS EN-1 sets out policy for the consideration of greenhouse gas emissions (GHG) in new energy infrastructure development. Paragraphs 5.3.1-3 note that there will be residual GHG emissions as a result of energy infrastructure development, but that all steps should be taken to reduce and mitigate climate change impacts. Paragraphs 5.3.4-10 require the submission of a GHG assessment and GHG Reduction Strategy. These should provide a whole life assessment and measurement of the GHG impacts, how these have been reduced, how the reduction in energy demand and consumption during operation has been prioritised in comparison with other measures, and the steps taken to minimise and offset emissions. In particular, opportunities to embed nature-based or technological solutions should be sought, and these should be given appropriate weight in the decision-making process.

5.8.14. Paragraphs 5.3.11-12 note that operational emissions may be a significant adverse impact of energy infrastructure, but that these will be addressed in an economy-wide manner and should not be a reason to prohibit consent or to impose more restrictions.

Appraisal of the Proposed Development

5.8.15. The GHG emissions of the Proposed Development are assessed in ES Appendix 5.1 Greenhouse Gas Assessment (Document Reference 6.4.5.1). The production of low carbon energy during the operation of the Proposed Development is anticipated to a beneficial effect, which is significant. The GHG assessment scope includes the impacts arising during construction, operation and decommissioning of the Proposed Development. A summary of the existing or embedded mitigation measures proposed to reduce the climate change impacts are outlined in Tables 5-14, 5-15 and 5-16 of ES Chapter 5 Climate Change (Document Reference 6.2.5).

5.8.16. Based on the nature of the Proposed Development and experience with similar projects, it is not anticipated that operational emissions to 2037 will contribute to be equal to or more than 1% of the annualised 4th, 5th or 6th UK carbon budgets. Beyond 2037, it is anticipated that direct operational emissions will decrease over time as a result of continuing grid decarbonisation, and of machinery and vehicle electrification, in line with the UK's net-zero carbon emissions target for 2050.

5.8.17. It is concluded that the Proposed Development is in compliance with policy relating to climate change adaptation and greenhouse gas emissions. The Proposed Development has been assessed in relation to its resilience to the effects of climate change in accordance with relevant projections and includes adaptation and resilience measures. The Proposed Development, as a low carbon energy generator, would have a significant beneficial effect during operation in relation to greenhouse gas emissions.

5.9. Pollution control, safety and human health

5.9.1. Matters relating to pollution control, safety and human health are set out in various sections of the NPSs, given the interrelationship between such effects some environmental impacts. As such, in addition to this section, some aspects of policy compliance are considered in other sections of this document.

5.9.2. In the determination of CNP infrastructure, the SoS is directed at paragraph 4.2.15 of NPS EN-1 that an exception to the presumption of consent would be residual impacts which present an unacceptable risk to, or unacceptable interference with, human health and public safety.

Pollution control and statutory nuisance

Summary of policy position

5.9.3. Section 4.12 of NPS EN-1 sets out the requirements for new energy infrastructure regarding pollution control. Paragraph 4.12.9 of NPS EN-1 states that the decision maker should focus on whether the development itself is an acceptable use of the land, and on the impacts of that use, rather than the control of processes, emissions or discharges themselves.

5.9.4. Paragraphs 4.12.6, 7, 8, 10 and 13 of NPS EN-1 state that the decision-making process should assume that the relevant pollution control and environmental regulatory regimes will be operational and should not duplicate these. The paragraphs note that the applicant should make early contact with relevant regulators to ensure applications take account of all relevant environmental considerations and regulators are able to provide timely advice, and that applications for environmental permits and other consents are submitted at the same time as the application for development consent.

5.9.5. Paragraphs 4.12.14-16 of NPS EN-1 states that the decision maker should be satisfied that development consent can be granted taking full account of environmental impacts. This should be achieved through consultation with the relevant pollution control authorities to confirm that potential releases can be adequately regulated and the cumulative effects of pollution, including existing sources and the proposed development, would not make development unacceptable. It is clearly stated that consent should not be refused based on pollution impacts unless the SoS has good reason to believe that any necessary consents and licences will not subsequently be granted. On this basis, only residual amenity issues should be considered in considering if the development is an acceptable use of the land.

5.9.6. Paragraphs 5.7.1-2 of NPS EN-1 concern the release of a range of emissions such as odour, dust, steam, smoke, artificial light and infestation of insects during the construction, operation and decommissioning of energy infrastructure. All have the potential to have a detrimental impact on amenity or cause a common law nuisance or statutory nuisance under Part III, Environmental Protection Act 1990. However, they are not regulated by the environmental permitting regime, so mitigation of these impacts will need to be included in the DCO.

5.9.7. Paragraphs 5.7.5-13 of NPS EN-1 require the applicant to assess potential for the above listed emissions as part of the ES, consulting the relevant local planning authority and, where appropriate, the EA about the scope and methodology of the assessment. Paragraphs 5.7.8-10/14-15 of NPS EN-1 refer to the potential mitigation measures that may be implemented to manage or reduce potential sources of emissions and their effects on amenity, including production of a construction management plan or the use of requirements imposed by the SoS.

5.9.8. Policy DC4 of the Darlington Local Plan requires new development to be acceptable in terms of emissions from odour, fumes, smoke, and dust. Policy ENV7 of the SBC Local

Plan requires that any development that may cause pollution relating to groundwater, surface water, air (including odour), noise or light must incorporate measures so as not to cause unacceptable impacts, either individually or cumulatively. Policy 31 of the County Durham Plan also disallows development which would lead to unacceptable levels of air quality, inappropriate odours, noise and vibration or other sources of pollution, unless appropriate mitigation can be provided.

Appraisal of the Proposed Development

5.9.9. The ES provided in Volume 6 of the DCO application provides an assessment of the likely environmental effects of the Proposed Development, including potential sources of pollution. Consideration of different sources of potential pollution are assessed within the following documents:

- ES Appendix 2.1 Phase 1 Geoenvironmental and Geotechnical Desk Study (Document Reference 6.4.2.1)
- ES Appendix 2.4 Construction Dust Assessment (Document Reference 6.4.2.4)
- ES Appendix 2.5 Major Accidents and Disasters Assessment (Document Reference 6.4.2.5)
- ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10)
- ES Chapter 11 Noise and Vibration (Document Reference 6.2.11)

5.9.10. In addition, management plans are included in the DCO application which secure the implementation of measures during construction, operation and decommissioning which would seek to avoid or reduce risks relating to pollution and emissions including:

- ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.6)
- ES Appendix 2.7 Outline DEMP (Document Reference 6.4.2.7)
- ES Appendix 2.8 Outline Construction Traffic Management Plan (CTMP) (Document Reference 6.4.2.8)
- ES Appendix 2.13 Outline Battery Fire Safety Plan (Document Reference 6.4.2.13)

5.9.11. The implementation of these plans and the measures detailed within are secured via requirements of the draft DCO (Document Reference 3.1).

5.9.12. Permits, consents and licenses required for the construction, operation and decommissioning of the Proposed Development, beyond those provided for through the DCO, are identified in Other Consents and Licenses (Document Reference 7.3), alongside their status. Engagement with the relevant regulator has been undertaken and is summarised in that document. This is also reflected in Potential Main Issues for Examination (PMIE) (Document Reference 7.6), in which at time of application, there are no outstanding concerns identified relating to pollution with key consultees.

5.9.13. A Statement of Statutory Nuisance (Document Reference 7.4) has been prepared as part of the DCO application and sets out whether the Proposed Development engages

one or more of the matters in section 79(1) (statutory nuisances and inspections therefor) of the Environmental Protection Act 1990.

5.9.14. The Statement of Statutory Nuisance (Document Reference 7.4) identifies relevant potential sources of nuisance and how they have been assessed in the ES. The potential for insect infestation, steam, smoke or odour resulting from the Proposed Development is considered very low and is not identified in the Statement as potential source of statutory nuisance. Dust and artificial light are considered[1].

5.9.15. A construction dust assessment is provided as ES Appendix 2.4 (Document Reference 6.4.2.4) in line with the latest practice Institute of Air Quality Management (IAQM) Guidance. Measures for the control of dust during construction and decommissioning are secured via the Outline CEMP (Document Reference 6.4.2.6) and Outline DEMP (Document Reference 6.4.2.7) respectively.

5.9.16. During the construction and decommissioning phases of the Proposed Development, it is envisaged that artificial lighting may be required to facilitate construction areas where there is limited natural light and during core working hours within winter months. The use of artificial lighting will be controlled by the Outline CEMP (Document Reference 6.4.2.6), adopting the necessary mitigation hierarchy to protect ecological and residential receptors.

5.9.17. There is no permanent lighting proposed as part of the Proposed Development, except for the localised emergency security lighting in proximity to the substation and energy storage systems. Such lighting would be triggered by movement only or manually turned on, and so would not be active for all hours of darkness. CCTV to be installed along the security fencing associated with the onsite substation and energy storage system would utilise infrared technology.

5.9.18. The Statement of Statutory Nuisance (Document Reference 7.4) concludes that there would be no statutory nuisance arising from the Proposed Development, and embedded mitigation through the design of the Proposed Development coupled with the mitigation measures identified within the Environmental Statement (Volume 6 of the DCO), will prevent impacts which have a potential to result in statutory nuisance.

Hazardous substances and sulphur hexafluoride

Summary of policy position

5.9.19. Section 4.14 of NPS EN-1 considers hazardous substances. Paragraphs 4.14.1-7 of NPS EN-1 outlines that holding stocks of certain hazardous substances above a threshold requires a Hazardous Substances consent, and that the Health and Safety Executive (HSE) should be consulted regarding this so that they can assess any risks and recommend whether consent should be granted. The applicant should also check with

[1] Noise is also considered in the Statement of Statutory Nuisance, however it is considered separately in this document under section 5.12.

the local planning authority whether its proposed site is within the consultation distance of any site with hazardous substances consent and, if so, should consult the HSE for its advice on locating the particular development on that site.

5.9.20. Paragraphs 2.9.61 to 2.9.64 of NPS EN-5 considers the use of sulphur hexafluoride (SF6). Whilst not a hazardous substance, NPS EN-5 identifies that it is an extraordinarily potent greenhouse gas and its use is of increasing environmental concern. NPS EN-5 requests that applicants consider the use of SF6 carefully and seek to avoid its use. Paragraphs 2.9.62-4 require that if SF6 is to be used, the applicant should evidence their reasoning and any alternatives considered, and produce a plan for monitoring and control of fugitive SF6 emissions in accordance with the Fluorinated gas (F-gas) Regulation.

Appraisal of the Proposed Development

5.9.21. The Proposed Development does not require Hazardous Substances Consent. Appendix 2.9 Outline Pollution and Spillage Response Plan (Document Reference 6.4.2.9) is secured via requirement 7 of the draft DCO (Document Reference 3.1) and sets out the measures to be implemented to prevent and control pollution during construction and operation of the Proposed Development. As recorded in the Consultation Report (Document Reference 6.1), the Applicant has sought to engage with the local planning authorities of DBC, SBC and DCC regularly during the pre-application period. None of the authorities have identified a concern regarding sites with hazardous licenses consent.

5.9.22. Regarding SF6, the Applicant can confirm that at this time, SF-6 use would be limited to the 132Kv circuit breakers at the on-site substation and Norton Substation. This is in line with the current standards used by Distribution Network Operators (DNOs). RWE will continue to work with the DNO to avoid the use of SF-6 if possible and remain in compliance with adoptable standards.

Safety

Summary of policy position

5.9.23. The relationship between new energy infrastructure and health and safety legislation is outlined in Section 4.13 of NPS EN-1. Paragraphs 4.13.2-4 of NPS EN-1 outline that some technologies are regulated by specific health and safety legislation, including the Control of Major Accident Hazards (COMAH) Regulations. The same principles apply for safety as for those set out above on pollution control and other environmental permitting regimes.

5.9.24. Paragraphs 4.13.6-8 of NPS EN-1 state that applicants should make early contact with the Competent Authority and HSE, to discuss what will be required in a safety report, where necessary. The decision maker should be satisfied that an assessment has been made and that the Competent Authority is satisfied with the development.

Appraisal of the Proposed Development

5.9.25. Pre-application engagement with the Environment Agency has been undertaken to discuss matters relevant to their regulatory function. This is reflected in the Potential Main Issues for Examination (PMIE) (Document Reference 7.6). No concerns have been raised.

5.9.26. As part of the statutory consultation carried out between May and June 2023, the Health and Safety Executive (HSE) were notified and invited to comment on the proposals for Byers Gill Solar. No response has been received. HSE did however provide a response to the Scoping Report and the comments made at that time have been taken into consideration in the preparation of ES Appendix 2.5 Major Accidents and Disasters Assessment (Document Reference 6.4.2.5), which provides an assessment of the potential for battery fire and damage to existing utilities through the Proposed Development.

5.9.27. ES Appendix 2.13 Outline Battery Fire Safety Plan (Document Reference 6.4.2.13) identifies the safety measures to be implemented to reduce risks related to battery and electrical safety is secured via requirement 11 of the draft DCO (Document Reference 3.1). This has been developed in consultation with the local fire rescue service. Appendix 2.9 Outline Pollution and Spillage Response Plan (Document Reference 6.4.2.9) is secured via requirement 7 of the draft DCO (Document Reference 3.1) and sets out the measures to be implemented to prevent and control pollution during construction and operation of the Proposed Development.

Health

Summary of policy position

5.9.28. The impacts of new energy infrastructure on health and wellbeing are covered in Section 4.4 of NPS EN-1. Paragraphs 4.4.1, 4 and 5 of NPS EN-1 note the potential for energy infrastructure to impact human health and wellbeing, and that an assessment of these impacts should be included in the ES, identifying measures to avoid, reduce or compensate for these impacts as appropriate. There can also be a cumulative impact from more than one development. Paragraph 4.4.2 of NPS EN-1 details the direct impacts on health as:

- increased traffic,
- air or water pollution,
- dust, odour,
- hazardous waste and substances,
- noise,
- exposure to radiation, and
- increases in pests.

5.9.29. The effects of energy infrastructure on the composition and size of the local population, which may then lead to indirect health impacts, such as access to key services and recreation spaces, is noted in paragraph 4.4.3 of NPS EN-1.

5.9.30. Paragraphs 4.4.7-8 of NPS EN-1 outline that aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation which will constitute effective mitigation of them, so that it is unlikely that health concerns will either by themselves constitute a reason to refuse consent or require specific mitigation. However, the decision maker may want to take account of health concerns when setting requirements. Paragraph 4.4.6 adds that opportunities should be taken to mitigate indirect impacts by promoting local improvements to encourage health and wellbeing, including impacts on vulnerable groups.

5.9.31. Policy DC3 of the DBC Local Plan supports development which supports improvements to health and wellbeing in Darlington. This includes through the promotion of access to the countryside and active travel, and the submission of a Health Impact Assessment as part of the application to explain how health considerations have informed the design. SBC Local Plan Policy ENV7 and Policy 31 of the County Durham Plan disallow development that would have unacceptable impacts on human health, with suitable mitigation being required to bring pollution within acceptable levels.

Appraisal of the Proposed Development

5.9.32. As reported in ES Chapter 4 Approach to EIA (Document Reference 6.2.4), a standalone chapter assessing effects of the Proposed Development on human health was scoped out of the ES, as it is anticipated that there would be limited impacts on human health during the construction and operation of the Proposed Development. Aspects of human health are considered in the ES within the context of other topics, namely ES Appendix 2.5 Major Accidents and Disasters Assessment (Document Reference 6.4.2.5), ES Chapter 7 Landscape and Visual (Document Reference 6.2.7) and ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9).

5.9.33. Management plans are included in the DCO application which secure the implementation of measures during construction, operation and decommissioning which would seek to avoid or reduce risks relating to human health including:

- ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.6)
- ES Appendix 2.7 Outline DEMP (Document Reference 6.4.2.7)
- ES Appendix 2.8 Outline CTMP (Document Reference 6.4.2.8)
- ES Appendix 2.9 Outline Pollution and Spillage Response Plan (Document Reference 6.4.2.9)
- ES Appendix 2.13 Outline Battery Fire Safety Plan (Document Reference 6.4.2.13)

5.9.34. In relation to opportunities for improving health and wellbeing, as referenced in NPS EN-1 paragraph 4.4.6, the Proposed Development would provide enhanced access to

the countryside through approximately 3,600m of new permissive paths and provision of a community orchard, amenity area at Panel Area E and sensory garden.

5.9.35. The Proposed Development is concluded to be in compliance with policy relating to pollution control, safety and human health. The preceding section has demonstrated how various sources of pollution and hazards to health have been considered within the DCO application and where necessary, how measures to avoid or limit such risk are secured in the DCO. It is considered that the Proposed Development would not pose an unacceptable risk to, or unacceptable interference with, human health and public safety.

5.10. Historic environment

Summary of policy position

5.10.1. Paragraphs 5.9.1-6 of NPS EN-1 state 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. This includes designated heritage assets, as well as non-designated assets of demonstrable equivalence. Paragraph 5.9.7 of NPS EN-1 requires that impacts on other non-designated heritage assets are also considered, including those sites identified through the local plan (e.g. local listing) or via the decision-making process of the DCO itself, taking into account evidence of the assets' significance.

5.10.2. Paragraphs 5.9.10-12 of NPS EN-1 require the applicant to undertake the following as part of the ES:

- a description of the significance of the heritage assets affected by the proposed development, including any contribution made by their setting. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on their significance;
- consult the relevant Historic Environment Record and assess the heritage assets themselves using expertise where necessary;
- carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation; and
- ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents, including assessments relating to noise, vibration, light and indirect impacts to heritage assets as appropriate.

5.10.3. Additionally, paragraph 5.9.9 specifies that the EIA should explain how the mitigation hierarchy has been applied and consider the possible impacts, including cumulative, on the wider historic environment e.g. through historic landscape assessment.

5.10.4. Paragraphs 5.9.16-34 of NPS EN-1 provide guidance on how the SoS will seek to identify and assess the significance of and impact on heritage assets which may be

affected by the Proposed Development, taking into account evidence provided by the applicant, relevant historic asset records, third party representations and expert advice as appropriate.

5.10.5. Paragraphs 5.9.13-15 of NPS EN-1 state that the applicant is encouraged, where opportunities exist, to prepare proposals which can make a positive contribution to the historic environment, and to consider how their scheme takes account of the significance of heritage assets affected. This includes opportunities for new development within Conservation Areas and World Heritage Sites, and within the setting of heritage assets, to enhance or better reveal their significance.

5.10.6. Paragraphs 2.10.107-110 of NPS EN-3 set out how solar PV developments may specifically impact on the historic environment, above and below ground, identifying the below ground impacts would generally be limited to ground disturbance related to construction and that there may in fact be positive effects to archaeological assets by removing land from regular ploughing.

5.10.7. Paragraphs 2.10.112 – 2.10.119 of NPS EN-3 provide guidance on undertaking assessment of solar farms in relation to heritage effects, which largely replicates that provided in NPS EN-1. There is however specific emphasis on the potential effect to the setting of heritage assets via landscape and visual effects, with paragraph 2.10.119 suggesting the use of visualisations where necessary to demonstrate effects.

5.10.8. The policies of the NPSs are reflected in the requirements of DBC Local Plan policy ENV; SBC Local Plan policies SD5 and HE2 ; and County Durham Plan policy 44. These policies all require that development proposals include an assessment of effects on designated or non-designated heritage assets where there is potential for effects. They emphasis the need to conserve and enhance heritage assets through development and take into consideration effects on the setting and wider historic environment. The policies reflect the NPPF in setting out the need for harm to designated heritage assets to be clearly justified and outweighed by public benefit, in a manner that is appropriate to the significance of the asset. SBC and DCC policy also specifically recognises the potential for development to enhance or positively respond to the existing historic environment, encouraging applicants to seek opportunities to do so within their proposals.

Appraisal of the Proposed Development

5.10.9. ES Chapter 8 Cultural Heritage and Archaeology (Document Reference 6.2.8) has been prepared in accordance with the requirements of the NPSs. It

- describes the significance of heritage assets, consideration of above ground impacts, such as the setting of heritage assets and Historic Landscape Character, and below ground impacts such as direct impacts to archaeological deposits;
- details consultation and engagement undertaken with the Historic Environment Record (HER), Historic England and the County Archaeologist;

- includes ES Appendix 8.1 Historic Environment Desk-based Assessment (HEDBA) (Document Reference 6.4.8.1) which sets out the desk-based assessment undertaken, in addition to field evaluation work detailed in ES Appendix 8.4 Phase 1 Evaluation Trenching Report (Document Reference 6.4.8.4); and
- explains how the mitigation hierarchy has been applied and considers cumulative effects in ES Chapter 13 Cumulative Effects (Document Reference 6.2.13).

5.10.10. ES Chapter 8 Cultural Heritage and Archaeology (Document Reference 6.2.8) identifies that heritage assets in the vicinity of the Order Limits include Bishopton Conservation Village, a number of listed buildings, Bishopton Landing Ground (a World War One airfield), areas of known archaeological remains, and a motte and bailey castle.

5.10.11. To aid identification of below ground assets, geophysical survey has been undertaken and is reported in ES Appendix 8.3 Detailed Gradiometer Survey Report (Document Reference 6.4.8.3), whilst an initial phase of trial trenching has been carried out and is reported in ES Appendix 8.4 Phase 1 Evaluation Trenching Report (Document Reference 6.4.8.4).

5.10.12. The heritage assets assessed have either medium or low heritage significance. ES Chapter 8 Cultural Heritage and Archaeology (Document Reference 6.2.8) concludes that there would be no significant effects to cultural heritage, including designated heritage assets, as a result of the Proposed Development. The Proposed Development is therefore compliant with national and local policy.

5.10.13. Mitigation for as yet unknown archaeological remains is outlined in ES Chapter 8 Cultural Heritage and Archaeology (Document Reference 6.2.8). This includes mitigation through design, removing potential for below ground impacts by using localised pad foundations in areas identified through further site investigation work post-consent as having archaeological assets. These measures, and the use of preservation by record via a watching brief, are secured via ES Appendix 8.5: Archaeological Management Strategy (Document Reference 6.4.8.5) and requirement 18 of the draft DCO.

5.10.14. Opportunities for enhancement of heritage assets are outlined in ES Chapter 8 Cultural Heritage and Archaeology (Document Reference 6.2.8). The Proposed Development offers the opportunity for heritage benefits to the local community of Bishopton through the enhancement of knowledge, understanding and engagement with the First World War airfield which is located within the Order Limits. The specific measures should be formulated in consultation with the local community and interested local stakeholders along with representatives from the LPA(s).

5.10.15. The Proposed Development would not result in any significant effects relating to the historic environment. Measures are secured via the DCO to ensure that any as yet unknown historic assets via archaeological remains are mitigated for during delivery of the Proposed Development. Enhancement is proposed via increased understanding and engagement, for example through the provision of interpretative boards relating to a

First World War airfield, a local non-designated asset, .. It is therefore considered that the Proposed Development, in conserving and enhancing the historic environment, is in compliance with relevant policy.

5.11. Landscape and visual effects

5.11.1. Section 5.10 of NPS EN-1 sets out the policy regarding landscape and visual effects. NPS EN-3 provides additional solar-specific policy in section 2.10.

Summary of policy position

5.11.2. Paragraphs 5.10.5, 6 and 13 of NPS EN-1 note that all proposed energy infrastructure is likely to have visual effects, but that harm should be minimised, and that there may also be beneficial landscape impacts stemming from mitigation. Paragraph 5.10.12 of NPS EN-1 requires that outside of nationally designated areas, local policies informed by local landscape character assessment should be paid particular attention, however it states that locally valued landscapes should not be used in themselves to refuse consent.

5.11.3. Paragraphs 5.10.16-25 of NPS EN-1 set out the requirements for landscape and visual assessment to be included in DCO application for energy NSIPs. They require that the assessment:

- includes reference to landscape character assessments, associated studies and relevant local polices;
- considers landscape and visual matters in early stages of siting and design;
- demonstrate how negative effects have been minimised and opportunities for positive benefits/enhancement have been realised;
- consider effects during construction and operation, including impacts on views and visual amenity, and light pollution;
- consider effects of noise, light pollution and other emissions on residential amenity and sensitive receptors;
- consider how landscapes can be enhanced via landscape management plans; and
- consider cumulative effects.

5.11.4. In designing mitigation, paragraphs 5.10.26-27 of NPS EN-1 note that reducing the scale and amending the design of a project can mitigate landscape and visual effects, but recognises the balance that must be achieved in maintaining operational function and working within constraints, such as electricity generation output. The SoS may decide that a small loss of function is outweighed by significant benefit from this mitigation. Mitigation can also be provided through appropriate siting, design, materials and sympathetic landscaping and management. Paragraph 5.10.28 of NPS EN-1 states that offsite landscaping may also be appropriate in some contexts.

5.11.5. Paragraphs 5.10.14 and 5.10.35-38of NPS EN-1 set out that the SoS should judge whether any adverse landscape impacts are offset by the benefits of the scheme, taking

into account the need for the project. In doing so, the SoS is directed to consider whether adverse effects will be temporary or reversible. The SoS should also consider whether the project has been designed carefully taking into account environmental effects, and operational constraints, in order to minimise harm.

5.11.6. NPS EN-1 paragraphs 5.10.29, 30 and 38 refer to the controls secured relating to detailed design. They direct the SoS to consider the level of detailed design provided and how much will be subject to future approvals, whether local authorities will have sufficient design content to ensure landscaping and design objectives are met, or whether requirements should be used.

5.11.7. Paragraphs 2.10.93-94 of NPS EN-3 note that the extent of visibility of solar farms is a function of the wide area that may be covered by such developments and the topography, but that with effective screening and topography this can be minimised. Paragraphs 2.10.96-97 also recommend applicants consider landscape and visual impacts carefully pre-application, with an assessment reported in the ES, and that visualisations may be required to demonstrate effects. Paragraphs 2.10.98-99 require applicants to consider the criteria for good design set out in NPS EN-1, and that consideration of any required security measures should also be considered in the context minimising the impact on landscape and visual effects. Paragraphs 2.10.100-101 state that proposals should protect and retain, wherever possible, the growth of vegetation, and impacts on trees and hedges should be informed by appropriate assessments. The SoS should also consider, as set out in paragraph 2.10.157, the cumulative effects with existing or proposed development on landscape and visual receptors.

5.11.8. DBC Local Plan Policy DC1 requires applicants to demonstrate that the constraints and opportunities of a site and the development have informed the design, including that the proposal reflects the local environment, responds positively to the local context and takes account of important views. Policy ENV3 requires development to retain, protect and enhance existing green corridors and the natural quality of the rural landscape. Policy SD5 supports development that does not harm the character and appearance of the countryside, and is responsive to local landscape, including through mitigation. Development which would lead to unacceptable harm to the landscape will be refused unless the benefits outweigh the harm.

5.11.9. SBC Local Plan Policy SD8 supports development which responds positively to the local landscape character. County Durham Local Plan Policy 29 requires landscape proposals to respond creatively to topography and existing features, and respect and, where appropriate, take opportunities to create attractive views. Policy 39 disallows development which would cause unacceptable harm to the character, quality or distinctiveness of the landscape, or to important features or views, and requires proposals to incorporate appropriate mitigation. Development should have regard for local policy and should contribute, where possible, to the conservation or enhancement of the local landscape.

Appraisal of the Proposed Development

5.11.10. The Proposed Development is not located within a designated landscape. The nearest Areas of Outstanding Natural Beauty (AONB) and National Parks are located more than 20km from the Proposed Development.

5.11.11. As set out in sections 5.2 and 5.3 regarding alternatives and good design, respectively, and more fully in the Design Approach Document (Document Reference 7.2) and ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3), landscape and visual impacts have been considered early and iteratively in the site selection and design process. Changes made to the design of the Proposed Development have sought to avoid and reduce landscape and visual effects, such as through reducing the proposed height of the solar panels (from a maximum of 4.35m to 3.5m); increasing setbacks from settlements and removing panels from some fields within Panel Areas; infilling of existing tree and hedgerow gaps, with the majority of existing hedgerows and trees maintained and enhanced, as well as additional screening planting. This is depicted and secured via the Environmental Masterplan (Document Reference 2.5). No mitigation is located outside of the Order Limits and offsite mitigation was not identified as being of benefit in reducing significant adverse effects.

5.11.12. ES Chapter 7 Landscape and Visual (Document Reference 6.2.7) provides a landscape and visual impact assessment, and a cumulative assessment, taking into account local and national development plan policies. The chapter outlines in section 7.4 the methodology applied to the assessment, including how sensitivity has been judged, and is supported by a detailed methodology in ES Appendix 7.1 LVIA Methodology (Document Reference 6.4.7.1). The Zone of Theoretical Visibility studies for the Proposed Development are in ES Figures 7.2, 7.3 and 7.8 (Document References 6.3.7.2/3/8), whilst ES Figure 7.9 Visualisations (Document Reference 6.3.7.9) provides visualisations of the Proposed Development at baseline, Year 1 and Year 15 to demonstrate the visual effects from identified viewpoints, which are analysed in detail in ES Appendix 7.4 Viewpoint Analysis (Document Reference 6.4.7.4) and Table 7.7 of the ES.

5.11.13. The assessment reported in ES Chapter 7 considers impacts of the Proposed Development on character, visual receptors, landscape fabric, and designations during construction, operation and decommissioning. Following pre-application engagement with DBC, ES Chapter 7 Landscape and Visual (Document Reference 6.2.7) includes an assessment of village character, which has not generally been carried out for similar solar NSIPs. An assessment of cumulative effects is provided in ES Chapter 13 Cumulative Effects (Document Reference 6.2.13). Light pollution has not been assessed as there is no permanent lighting proposed as part of the Proposed Development, except for infra-red nighttime security lighting and emergency lighting.

5.11.14. Significant adverse effects are identified during construction and operation and decommissioning of the Proposed Development, relating to (in summary):

- the character of Landscape Character Area (LCA) Darlington 6 Great Stainton Farmland during operation;
- the character of Great Stainton village during operation;
- the character of Bishopton village during construction (if on-road cable route selected, only) and operation Years 1 to 10;
- views at Great Stainton (during operation) and Bishopton (during years 1 – 10 of operation, changing to a neutral, not significant effect for years 10 – 40 of operation); and
- views from PRoW within 1km.

5.11.15. All other sensitive receptors would not experience significant effects, however a range of minor and moderate adverse effects are identified in ES Chapter 7 Landscape and Visual (Document Reference 6.2.7). It should be noted that following pre-application engagement with Darlington Borough Council, the assessment reported in ES Chapter 7 Landscape and Visual (Document Reference 6.2.7) includes an assessment of village character, which has not generally been carried out for similar solar NSIPs. Some of the significant effects reported have arisen through this additional level of assessment.

5.11.16. Most of the significant adverse effects would arise during operation, however, they would be reversible following decommissioning. The temporary, 40-year operational period of the Proposed Development is secured via the DCO (Document Reference 3.1). After decommissioning, the Proposed Development would leave a positive legacy of improved landscape fabric and character due to the denser hedgerows and maturing trees which would be left after the lifetime of the operational development. This may result in the enclosure of currently open views, however after the operational lifetime of the project, hedges could be reverted to lower heights to allow outward views over them if that is judged desirable.

5.11.17. In relation to the detailed design, requirement 3 of the draft DCO (Document Reference 3.1) secures the further detailed design of the Proposed Development, in line with controls in the DCO application such as the Design Approach Document (Document Reference 7.2). This will require that the local planning authority approves the detailed design of the relevant phase of the Proposed Development prior to commencement of that phase. Measures to ensure that new planting and management of existing vegetation meets the design intent, throughout the operational period are secured via ES Appendix 2.14 Outline LEMP (Document Reference 6.4.2.14).

5.11.18. It is concluded that the Proposed Development is compliant with policy relating to landscape and visual effects. The Applicant has demonstrated that potential impacts to the landscape have been considered from the outset of the siting and design of the Proposed Development, with the design amended iteratively to respond to assessment findings and feedback. The LVIA assessment is comprehensive and in accordance with NPS requirements, with additional assessment of village character undertaken as result of discussion with the relevant LPA.

5.11.19. The assessment does identify a number of residual significant adverse effects arising from the Proposed Development, following the application of the mitigation hierarchy. These effects reflect constraints of the local landscape and would be reversible following decommissioning. The DCO would sufficiently secure control of detailed design and landscape management to ensure that the design intent and mitigation would be appropriately delivered as part of the Proposed Development, and with approval of the LPA. Taking into account the status of the Proposed Development as CNP infrastructure, and the recognition in the NPSs that energy infrastructure is likely to have visual effects, it is considered that the residual landscape effects identified do not outweigh the benefits of, or urgent need for, the Proposed Development.

5.12. Noise and vibration

Summary of policy position

5.12.1. Paragraphs 5.12.1-5 of NPS EN-1 outline the effects of noise and vibration on human amenity, buildings and biodiversity, and identifies the factors that will determine the likely noise impact of a project. This includes the type of development and its potential for noise generation and proximity to noise sensitive premises, landscapes and species.

5.12.2. Paragraphs 5.12.6-12 set out how noise should be assessed in a DCO application where there is potential for impacts to arise through noise. This includes a requirement for the assessment to:

- describe noise generating aspects of the Proposed Development;
- identify noise sensitive receptors and describe the existing noise environment;
- predict how the noise environment will change as a result of the Proposed Development during construction and operational phases, including in relation to noise sensitive receptors;
- be proportionate to the likely noise impact;
- consider ancillary activities such as increased road movements;
- assess operational noise with respect to human receptors using relevant British Standards and other guidance; and
- include a mitigation plan.

5.12.3. Paragraph 5.12.10 of NPS EN-1 identifies that some noise impacts are to be controlled through environmental permits, encouraging consultation with the EA or SNCB as necessary.

5.12.4. Paragraphs 5.12.13-18 direct the SoS to consider mitigation measures, including those relating to design and layout, restrictions on noise-generating activities and/or insulation to buildings. Containment of noise within buildings and via selection of quiet plant is encouraged, and the SoS may consider imposing requirements or mitigation measures where necessary.

5.12.5. NPS EN-5 makes reference in paragraph 2.9.37 to the potential for noise arising from substations.

5.12.6. DBC Policy DC4, SBC Policy ENV7 and County Durham Policy 31 all make reference to noise impacts within the context of protecting amenity and avoiding noise pollution. Development resulting in unacceptable impacts through noise is not supported.

Appraisal of the Proposed Development

5.12.7. ES Chapter 11 Noise and Vibration (Document Reference 6.2.11) provides an assessment of potential noise effects which is in accordance with the requirements of the NPS and the scope as agreed through the EIA Scoping process, as well as through engagement with the relevant local planning authorities. British Standard 8233:2014 Guidance on Sound Insulation and Noise Reduction for Buildings – Code of Practice (BS8233) and British Standard 4142:2014+A1:2019 Methods for Rating and Assessing Industrial and Commercial Sound have informed the noise assessment, and the assessment includes consideration of ancillary activities to the Proposed Development such as construction and operational traffic.

5.12.8. The assessment identifies that the main sources of noise would be construction activities and related traffic during the construction and decommissioning phases, and road traffic and supporting infrastructure (such as BESS, inverters, the on-site substation) during the operational phase. It concludes a significant adverse effect would arise during construction and decommissioning activities, however this would be short-term and reversible. No significant effects are identified during the operation of the Proposed Development.

5.12.9. A schedule of the mitigation measures relating to noise and how they are secured is provided in the Mitigation Route Map (Document Reference 7.8). This includes measures to be implemented to manage any potential noise and vibration impacts during construction and decommissioning via ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.6) and ES Appendix 2.7 Outline DEMP (Document Reference 6.4.2.7). Noise and vibration impacts during operation have been mitigated through design measures, with noise sources located as far as reasonably possible to a minimum of 300m from existing sensitive receptors, within the design, to minimise potential noise levels at the receptors. The inverters will also be housed within containers which will further reduce the noise levels at source. Such design principles, which are outlined in the Design Approach Document (Document Reference 7.1) as part of the overall approach to 'good design', are secured via requirement 3 of the DCO (Document Reference 3.1).

5.12.10. The Proposed Development is concluded to be in accordance with policy relating to noise and vibration. An assessment of likely effects has been undertaken in line with appropriate policy and guidance and has considered all phases of development. It has identified significant effects as a result of construction and decommissioning activities, however these would be short term in nature and reversible, with controls secured through the DCO to ensure the effects are limited to those identified. The operation

of the Proposed Development would not result in any significant adverse effects, with the design and layout of noise generating infrastructure controlled via the DCO to avoid proximity to sensitive receptors and reduce noise transmission.

5.13. Public rights of way

Summary of policy position

5.13.1. Paragraphs 5.11.30-31 of NPS EN-1 note the importance of public rights of way (PRoW) and the expectation that mitigation measures will be taken to address any adverse effects on them. The applicant should consider opportunities to improve or create new access to PRoW.

5.13.2. NPS EN-3 recognises in paragraphs 2.10.41-42 that it may be necessary to close or divert PRoW during construction but that efforts should be made to keep these open, and that continued use during construction and operation should be ensured, particularly using layout and appearance. The visual impact for those using the PRoW should be minimised, as set out in paragraph 2.10.43. NPS EN-3 also states in paragraph 2.10.44 that opportunities to enhance existing and create new PRoW should be maximised. Paragraph 2.10.45 requests the management of PRoW to be set out in a management plan.

5.13.3. DBC Local Plan policy IN1 identifies protecting and enhancing PRoW as a priority for the council. Policies DC3 and IN2 require new development to promote active travel and physical activity through access to new development and to provide safe access to PRoW.

5.13.4. SBC Local Plan policy TI1 requires development to improve, extend and link the Borough's network of footpaths. The SBC Sustainable Design Guide section 4.3 states that development should be integrated with the surrounding networks of footways.

5.13.5. The County Durham Plan policy 26 states the expectation for development to maintain or improve access to the countryside and disallows development which would result in the loss of or deterioration in quality of PRoW. The policy also notes that should diversions be necessary, new routes should be direct, convenient and attractive, without a detrimental impact on environmental or heritage assets.

Appraisal of the Proposed Development

5.13.6. The impact, mitigation and enhancement of the PRoW network affected by the Proposed Development is considered in ES Chapter 9 Land use and Socioeconomics (Document Reference 6.2.9). It concludes that there would be a minor, not significant adverse effect during construction and decommissioning due to closure or extinguishment of existing PRoW.

5.13.7. This chapter also sets out how any temporary impacts to public rights of way would be mitigated in terms of diversion or temporary closure. An outline Public Rights of Way

Management Plan is provided with the DCO application as ES Appendix 2.15 (Document Reference 6.4.2.15). This sets out the principles as to how public rights of way would be managed during construction. Temporary closures or diversions to allow for maintenance activities will be subject to agreement with the LPA through the provision of an updated PRoW Management Plan, to be developed prior to construction, and secured via requirement 14 of the DCO (Document Reference 3.1).

5.13.8. It is the intention of the Applicant to retain access during the operational stage wherever safe and practicable to do so. The Applicant has proposed an additional approximate 3,600m of permissive paths in order to create an enhanced and better-connected network in the local area. It is proposed that these permissive routes are provided during the construction phase of the Proposed Development, to minimise impact and result in a reduced need for temporary diversions to allow for construction activities. As set out in the Outline Public Rights of Way Management Plan (Document Reference 6.4.2.15), details and specifications of access features/means of enclosure and signage would be agreed between the Applicant and DBC prior to implementation.

5.13.9. ES Chapter 7 Landscape and Visual (Document Reference 6.2.7) assesses the visual effects of the Proposed Development on visual receptors including users of rights of way. This is considered in section 5.11 of this document.

5.13.10. The Proposed Development would not result in any significant effects to the PRoW network, with approximately 3,600m of permissive paths to be delivered during operation. Effects during construction and mitigation, such as temporary closures or diversions, are to be managed in the PRoW Management Plan secured in the DCO. It is considered the Proposed Development is compliant with policy relating to PRoWs.

5.14. Socioeconomics

Summary of policy position

5.14.1. Section 5.13 of NPS EN-1 cover socio-economic impacts in relation to new energy infrastructure.

5.14.2. Paragraphs 5.13.1-3 of NPS EN-1 state that the construction, operation and decommissioning of energy infrastructure may have socio-economic impacts at local and regional levels. Where this is likely, the applicant should undertake and include in their application an assessment of these impacts as part of the ES. The applicant is strongly encouraged to engage with relevant local authorities during early stages of project development so that the applicant can gain a better understanding of local or regional issues and opportunities.

5.14.3. Paragraph 5.13.4 of NPS EN-1 requires the applicant's assessment to consider all relevant socio-economic impacts, including the creation of jobs and training opportunities, the contribution to the development of low-carbon industries, the provision of additional local services and improvements to local infrastructure, any

indirect beneficial impacts for the region, effects (positive of negative) on tourism, the impact of a changing influx of workers, and cumulative effects.

5.14.4. Paragraph 5.13.5 of NPS EN-1 requires applicants to describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.

5.14.5. Paragraph 5.13.6 of NPS EN-1 state that socio-economic impacts may be linked to other impacts, for example visual impacts, but may also have an impact on tourism and local businesses. Applicants are encouraged, where possible, to demonstrate that local suppliers have been considered in any supply chain. Furthermore, paragraph 5.13.7 of NPS EN-1 requires applicants to consider developing accommodation strategies where appropriate, especially during construction and decommissioning phases, that would include the need to provide temporary accommodation for construction workers if required.

5.14.6. Paragraphs 5.13.9-11 of NPS EN-1 states that the SoS should have regard to the potential socio-economic impacts of new energy infrastructure identified by the applicant and from any other sources that the SoS considers to be both relevant and important to its decision. The SoS should consider any relevant positive provisions the applicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to the socio-economic impacts.

5.14.7. Paragraph 5.13.12 of NPS EN-1 states that the SoS may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted.

5.14.8. Paragraph 5.13.8 of NPS EN-1 states that the SoS should consider whether mitigation measures are necessary to mitigate any adverse socio-economic impacts of the development. For example, high quality design can improve the visual and environmental experience for visitors and the local community alike.

5.14.9. DBC Local Plan Policy DC5 states that DBC will encourage all local employers to participate in skills and employment training initiatives to increase access to employment for those who live within the area. Where development proposals would generate a significant number of construction and operational phase jobs, DBC will seek to secure appropriate commitments and targets for employment skills and training, including apprenticeships appropriate to the development proposed.

5.14.10. SBC Local Plan Policy TI2 states that there is a need to ensure that community infrastructure is delivered and protected to meet the needs of the growing population within the Borough. The council will ensure community infrastructure meets the education, cultural, social, leisure/recreation and health needs of all sections of the local

community, including protecting, maintaining and improving existing community infrastructure, addressing deficiencies, and supporting the provision of new community infrastructure. The council will also take into account listed or nominated 'Assets of Community Value'.

Appraisal of the Proposed Development

5.14.11. ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9) provides an assessment of the Proposed Development in relation to its socio-economic effects. Where applicable it includes an assessment of the likely local and regional effects during construction, operation, and decommissioning. The scope of the socioeconomic impacts assessed in ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9) has been informed by the requirements of the NPS and the outcome of the EIA scoping exercise. This includes consideration of construction employment, effects on community facilities, the development of low carbon industries and the delivery of community benefits through the Proposed Development. Cumulative effects are considered in ES Chapter 13 Cumulative Effects (Document Reference 6.2.13).

5.14.12. Section 9.3 of ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9) of the DCO application outlines engagement has been undertaken with local authorities as part of the assessment, whilst Section 9.7 provides a description of the existing conditions in the study area and considers local planning policies.

5.14.13. ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9) considers opportunities for local supply chains during construction, for examples ground works and the supply of materials are likely to be sourced locally. The assessment concludes that there would be a beneficial (not significant) effect arising from the Proposed Development in relation to employment and supply chain opportunities. Regarding paragraph 5.13.7 of NPS EN-1, the scale and temporal scope of the Proposed Development is considered insufficient to warrant the production of an accommodation strategy.

5.14.14. ES Chapter 9 Land Use and Socioeconomics (Document Reference 6.2.9) identifies the legacy benefits of the Proposed Development such as the provision of a £1.5m Community Benefit Fund.

5.14.15. The Proposed Development would provide beneficial effects relating to employment and supply chain opportunities, with no significant adverse effects identified relating to socio-economics. The Proposed Development is considered policy compliant on this matter.

5.15. Traffic and transport

Summary of policy position

5.15.1. Section 5.14 of NPS EN-1 covers the 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.

5.15.2. Paragraphs 5.14.5-7 of NPS EN-1 require that an applicant's ES includes a transport assessment if the proposed development is likely to have significant transport implications, with consultation with National Highways and highways authorities. A travel plan should also be prepared including demand management and monitoring measures, alongside measures to improve access to active, public and shared transport to reduce the need for parking. This is needed to contribute to the decarbonisation of the transport network and to improve user travel options. NPS EN-1 states in paragraph 5.14.8 that the assessment should consider any possible disruption to services and infrastructure.

5.15.3. Should additional transport infrastructure be proposed, applicants are required under paragraphs 5.14.9-10 of NPS EN-1 to discuss with network providers the possibility of co-funding by Government for any third-party benefits. Provision of good quality active travel facilities is also required.

5.15.4. Paragraphs 5.14.18-20 of NPS EN-1 note that new energy infrastructure may give rise to substantial impacts on the surrounding transport infrastructure and the applicant should seek to mitigate these; should mitigation measures be insufficient, the SoS should consider requirements to mitigate adverse impacts. The applicant should seek to enhance active, public and shared transport provision and accessibility. These paragraphs also state that if the applicant is willing to enter into planning obligations or requirements can be imposed, then development consent should not be withheld, and limited weight applied to residual effects.

5.15.5. Paragraphs 5.14.11 and 16 of NPS EN-1 set out a preference in policy to the use of demand management measures as an alternative to new transport infrastructure and the use of freight, including waterborne freight, instead of road transport. Paragraph 5.14.14 states that the SoS makers may attach HGV-specific requirements if there will be substantial HGV traffic.

5.15.6. NPS EN-1 states at paragraph 5.14.20 that consent should only be refused on highways grounds if there would be an unacceptable impact on highway safety, residual cumulative impacts would be severe, or consideration has not been shown to the provision of adequate active public or shared transport access and provision.

5.15.7. Paragraphs 2.10.36-39 of the NPS EN-3 note that access for the delivery of solar energy infrastructure can be a significant consideration given solar farms are usually located in rural settings. Access routes will usually need to be constructed, and so the full extent and assessment of these should be included in the application. Paragraphs

2.10.123-125 also require the routes for delivery of materials and components to be assessed; with use of a worst-case scenario if unknown. All sections of roads and bridges should be able to accommodate these deliveries.

5.15.8. Paragraph 2.10.126 requires cumulative transport impacts from multiple energy infrastructure projects to be assessed, and paragraphs 2.10.141 and 144 state that where there are predicted cumulative effects from multiple developments, it may be appropriate for applicants for various projects to work together to ensure that the disruption is minimised and any impermanent highways improvements to be available for other developments. Paragraphs 2.10.142-143 outline the role for the local highway authority in coordinating this.

5.15.9. NPS EN-3 states in paragraphs 2.10.139-140 that the SoS may impose requirements on vehicles movements and routes. Paragraphs 2.10.161-162 note that the operational traffic movements related to solar farms are usually light, and that only limited weight is likely to be given to traffic and transport noise and vibration impacts from the operational phase of a project.

5.15.10. Policy DC4 of the DBC Local Plan supports development where it is appropriately located and is acceptable in term of traffic movements. Policy IN3 requires the preparation and implementation of Travel Plans and Transport Assessments to promote the use of sustainable travel. Proposals will be supported that improve transport choice, minimise single occupancy vehicle trips, and contribute positively to managing congestion, reducing environmental impact and maintaining safety. This is reflected in Policy 21 of the County Durham Plan.

Appraisal of the Proposed Development

5.15.1. Section 12.8 of ES Chapter 12 Traffic and Transport (Document Reference 6.2.12) provides an assessment of the effects of the Proposed Development on traffic and transport during construction, operation and decommissioning. It concludes that the Proposed Development would have no significant effects in relation to transport.

Design and mitigation

5.15.2. The potential impacts on traffic and transport have been assessed based on the design of the Proposed Development, which includes proposed vehicular access routes, and the expected construction activities and duration. No additional transport infrastructure is required for the Proposed Development. It is considered that the traffic management measures proposed by the Applicant to be secured via the DCO are feasible and viable, with no need for further requirements to be imposed by the SoS.

5.15.3. Vehicular access to the site during construction and operation has been considered carefully in the design evolution of the Proposed Development, taking into account technical assessment and feedback received during statutory consultation and other engagement activities. The Consultation Report (Document Reference 5.1) identifies

how access routes were amended following concerns raised at statutory consultation. Table 12-1 of ES Chapter 12 Traffic and Transport (Document reference 6.2.12) outlines the consultation with relevant stakeholders including National Highways, in undertaking the design and assessment.

Construction effects

5.15.4. In relation to construction effects, ES Figure 2.21 Construction Compounds and Access Routes (Document Reference 6.3.2.21) depicts the identified vehicular access routes for construction of the Proposed Development, taking into account the likely type and volumes of vehicles required. No modification to roads and/or bridges is required for access, with only minor surface upgrades potentially required to bellmouths providing access to the Order Limits from the local road network. Section 12.5 of ES Chapter 12 Traffic and Transport (Document Reference 6.2.12) identifies the assumptions made with regard to assessing the worst-case scenario of the construction stage impacts of the Proposed Development.

5.15.5. ES Appendix 12.1 Transport Statement (Document Reference 6.4.12.1) outlines the expected traffic movements from the proposed development and measures that will be put in place to manage any potential transport impacts and implications on the transport network and local community. These measures and the production of a detailed CTMP in accordance with ES Appendix 2.8 Outline CTMP (Document Reference 6.4.2.8) prior to commencement of construction is secured via requirement 4 of the draft DCO (Document Reference 3.1). It identifies that staff trips will be mainly made by minibuses, while deliveries of construction materials and plant will mainly be made by HGVs. During the construction phase, it is expected that there would be approximately 45 staff trips per day made by minibuses and 6 HGV deliveries per Panel Area. It is considered that the scale of this development would not warrant use of rail or water-borne transport.

5.15.6. Section 5.1 of ES Appendix 2.8 Outline CTMP (Document reference 6.4.2.8) sets out the number of estimated construction trips per panel area per day. It has been assessed that is all Panel Areas were to be constructed simultaneously this would equate to a total of 36 construction (HGV) trips (72 movements) across the Order Limits per day. It is therefore anticipated that a maximum of three Panel Areas will be constructed at any given time, resulting in a maximum of 18 HGV trips (36 movements) generated per day. In terms of parking, it is expected that each panel area will provide sufficient parking for staff, and it is expected that 15 car parking spaces will be provided. HGV drivers would be able to use welfare facilities within temporary construction compounds, with a compound located in each Panel Area. The CTMP focuses on the management of construction traffic within the vicinity of the Proposed Development along the highway network during the construction period of the works, in order to limit any potential disruptions and implications on the transport network and local community.

5.15.7. The construction effects of both on and off-road cable route options have been assessed. From a traffic and movement perspective, on-road cable routing would be the worst-case scenario as it would require traffic management to be implemented, which could include temporary lane closures or diversions. If cable construction is required in the adopted highway, ES Appendix 2.8 Outline CTMP (Document Reference 6.4.2.8) includes measures to minimise the impact that could arise from works on the highway (such as temporary road closures and diversions).

Operation

5.15.8. In relation to operational effects, the access tracks required for maintenance during operation are depicted on the Works Plans (Document Reference 2.2) and the General Arrangement Plans (ES Figures 2.2. to 2.8, Document Reference 6.3.2.2-8). ES Chapter 12 Traffic and Transport (Document Reference 6.2.12) reports that during operation, the Proposed Development is expected to produce a negligible amount of additional traffic (one trip per month) during operation, resulting in no significant effects or a requirement for mitigation. ES Chapter 11 Noise and Vibration (Document Reference 6.2.11) identifies no significant effects during operation relating to noise.

5.15.9. As set out in ES Chapter 12 Traffic and Transport (Document Reference 6.2.12), the traffic modelling used for the Proposed Development has inherently assessed the cumulative impacts already for traffic and transport, and as such these are intrinsic to the traffic and transport assessment and reported as part of the potential effects of the Proposed Development in that chapter. It concludes there would be no significant effects arising from the Proposed Development in relation to traffic and transport.

5.15.10. The Proposed Development would not result in any significant effects to the transport network during construction, operation or decommissioning phases. Whilst additional traffic would be generated during construction and decommissioning activities, as modelled based on worst-case assumptions, this would be temporary in nature and would be sufficiently controlled through the DCO and the outline CTMP. It is considered that the Proposed Development is in compliance with policy relating to transport and traffic.

5.16. Resource and waste management

Summary of policy position

5.16.1. Section 5.15 of NPS EN-1 covers the impacts of waste and resource management in relation to new energy infrastructure.

5.16.2. Paragraphs 5.15.1-4 of NPS EN-1 set out that the overall government policy approach to waste is intended to protect human health and the environment by producing less waste, and ensuring any required disposal is as least damaging as it can be. The applicant's proposals must therefore implement the waste hierarchy of prevention, preparing for reuse, recycling, other recovery, including energy recovery, and disposal.

5.16.3. Paragraph 5.15.4 of NPS EN-1 states that all large infrastructure projects are likely to generate some hazardous and non-hazardous waste. The EA's Environmental Permit regime incorporates operational waste management requirements for certain activities. When an applicant applies to the EA for an Environmental Permit, the EA will require the application to demonstrate that processes are in place to meet all relevant Environmental Permit requirements.

5.16.4. Paragraphs 5.15.9-10 of NPS EN-1 requires the applicant to set out the proposed arrangements for sustainable management of waste, prepare a Site Waste Management Plan and undertake an assessment of the impact of the likely waste arisings, including the capacity of waste management facilities to deal with other waste arising in the area for at least five years of operation.

5.16.5. Paragraphs 5.15.14-17 of NPS EN-1 set out that the SoS should be satisfied that the applicant has proposed an effective system for managing hazardous and non-hazardous waste arising from the construction, operation and decommissioning of the proposed development, and consider requirements or obligations where necessary. Paragraph 5.15.12 states that, in refection of the UK's commitment to moving towards a more 'circular economy', where possible, applicants are encouraged to source materials from recycled or reused sources and use low carbon materials, sustainable sources and local suppliers. Construction best practices should be used to ensure that material is reused or recycled onsite where possible.

5.16.6. Paragraph 5.15.13 of NPS EN-1 states that applicants are also encouraged to use construction best practices in relation to storing materials in an adequate and protected place on site to prevent waste, for example, from damage or vandalism. The use of Building Information Management tools (or similar) to record the materials used in construction can help to reduce waste in future decommissioning of facilities, by identifying materials that can be recycled or reused.

5.16.7. DBC Local Plan 2016-36 (adopted 2022) Policy DC4 'Safeguarding Amenity' includes requires amenity of existing uses to be safeguarded from commercial waste. SBC Local Plan (adopted 2019) Policy SD8 'Sustainable Design Principles' includes requirement (4) that new development will see provision of adequate waste recycling, storage and collection facilities, which are appropriately sited and designed.

5.16.8. Tees Valley Joint Minerals and Waste DPD – Policies and Sites (adopted 2011) Policy MWP1 'Waste Audits' states that a waste audit will be required for all major development proposals. The audit should identify the amount and type of waste which is expected to be produced by the development, both during the construction phase and once it is in use. The audit should set out how this waste will be minimised and where it will be managed, in order to meet the strategic objective of driving waste management up the waste hierarchy.

Appraisal of the Proposed Development

5.16.9. ES Appendix 2.3 Assessment of Likely Waste Arisings (Document Reference 6.4.2.3) assesses the waste likely to be produced as a result of the Proposed Development. It sets out how different waste streams will be managed. Much will be reused or recycled. For the solar PV modules, the aim is to ensure they are disposed of responsibly and as much of the materials as possible are recycled. The Applicant will ensure that suppliers of solar PV modules for the Proposed Development are registered with a producer compliance scheme that has an industry managed take-back and recycling scheme. There is a new industry emerging for recycling solar PV modules. This would be explored, in addition to any resale of any operational panels. There is no hazardous waste predicted to be produced by the Proposed Development.

5.16.10. ES Appendix 2.3 Assessment of Likely Waste Arisings (Document Reference 6.4.2.3) identifies that the Proposed Development would utilise 0.004% of available inert landfill capacity in 2026, and concludes the overall effect of the Proposed Development in relation to waste would be negligible.

5.16.11. ES Appendix 2.11 Outline Site Waste Management Plan (Document Reference 6.4.2.11) sets out how waste will be managed efficiently and effectively, with opportunities to reduce, reuse and recycle waste materials considered and optimised wherever possible, and to promote best practice and environmental awareness. ES Appendix 2.11 Outline Site Waste Management Plan (Document Reference 6.4.2.11) would be secured via requirement 9 of the draft DCO (Document Reference 3.1) and would be progressed during the design phase and managed by the contractor during the construction phase to direct an effective circular economy approach to the management of resources and waste materials.

5.16.12. Permits, consents and licenses required for the construction, operation and decommissioning of the Proposed Development, beyond those provided for through the DCO, are identified in Other Consents and Licenses (Document Reference 7.3), including in relation to waste. Engagement with the relevant regulator has been undertaken and is summarised in that document. There are no issues anticipated with obtaining necessary environmental permits relating to waste.

5.16.13. The Proposed Development would have a negligible impact relating to waste and landfill capacity, with measures secured via the DCO to promote best practice waste management and reuse of materials. The Proposed Development is in accordance with policy relating to waste and resources.

5.17. Water environment and drainage

Summary of policy position

5.17.1. Section 5.8 of NPS EN-1 cover the impacts of flood risk management in relation to new energy infrastructure.

5.17.2. Paragraphs 5.8.5-6 of NPS EN-1 provide the background to flood risk, highlighting the importance of flood risk management as part of climate change adaptation. They identify the key aim of avoiding inappropriate development in areas at risk of flooding, and to steer new development to areas with the lowest risk of flooding. This is also reflected in Section 2.3 of NPS EN-5.

5.17.3. Paragraphs 5.8.13-14 of NPS EN-1 states that a site-specific flood risk assessment (FRA) be provided for all energy projects in Flood Zones 2 and 3 in England. In Flood Zone 1 in England, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the EA as having critical drainage problems, land identified as being at increased flood risk in the future (such as in a local authority strategic flood risk assessment); land that may be subject to other sources of flooding (such as surface water); where the EA, Lead Flood Authority (LLFA), Internal Drainage Board (IDB) or other body have indicated that there may be drainage problems. This FRA should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.

5.17.4. Paragraphs 5.8.15-19 of NPS EN-1 set out in detail the matters for inclusion in an FRA, noting the need for the assessment to be proportionate; take into account climate change; consider both adverse and beneficial effects arising; make use of natural flood risk management techniques and sustainable urban drainage (SUDs) as much as possible; and be supported by appropriate evidence and data. Pre-application discussions with the EA and other relevant bodies are encouraged. The considerations for the SoS are directed in paragraphs 5.8.36-40 of NPS EN-1, including the need to establish that all reasonable steps have been taken by the applicant and relevant authorities to resolve concerns if objections remain, noting that the SoS may still choose to grant consent in such circumstance.

5.17.5. Paragraphs 5.8.9-11 of NPS EN-1 set out how the Sequential and Exception Tests are to be applied in identifying appropriate sites for development and consideration of flood risk. Paragraphs 5.8.25-28 of NPS EN-1 provide detail on the use of SUDs for surface water management. The flood risk policy reiterates the need for consideration of climate resilience and of flood risk in site selection, taking into account the potential effects of climate change in the operational lifetime of the development.

5.17.6. Section 5.16 of NPS EN-1 considers the effect of energy infrastructure development on water quality and resources. It requires an assessment of these effects, where a project is likely to impact on the water environment, considering existing water quality; potential changes to abstraction rate;, physical impacts to the characteristics of water bodies; impacts to water bodies under the Water Framework Directive (WFD) or source protection zones (SPZs); as well as effects of climate change and cumulative impacts.

5.17.7. Paragraph 5.16.14 of NPS EN-1 requires that regard is given to current river basin management plans, whilst references are made throughout the section to the regard

required to pollution control and the outcome of engagement with the relevant regulatory bodies on matters of water quality and resource.

5.17.8. NPS EN-3 identifies in paragraphs 2.10.84-88 that generally solar PV panels will not have a significant impact on drainage and that given the temporary nature of solar farms, sites should be designed to avoid impacts to existing drainage or watercourses. The use of SUDS for is recommended, alongside permeable access tracks, whilst culverting is to be avoided where possible and where it can be demonstrated there are no alternatives.

5.17.9. The policies of the NPSs are reflected in DBC Local Plan policy DC2; SBC Local Plan policy ENV4 and the SBC Sustainable Design Guide SPD; and County Durham Plan policy 35. All of these policies prioritise development in lowest risk areas, requiring a sequential and exception test in line with the NPPF where necessary. The production of an FRA is required with relevant applications and the use of SUDS to manage surface water drainage is promoted. Development which would impact harmfully on flood risk, both to neighbouring uses and the development itself, or would adverse effect water quality and existing waterbodies, is resisted.

Appraisal of the Proposed Development

5.17.10. ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10) describes the baseline conditions of the Order Limits in relation to hydrology and flood risk, and considers the potential impacts of the Proposed Development, and any essential mitigation that may be required. A record of stakeholder engagement with the Lead Local Flood Authority and the Environment Agency is included in Table 10-1 of ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10). This has included discussions on the scope and findings of the assessment and the proposed drainage strategy.

Flood risk

5.17.11. ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10) identifies that the majority of the Proposed Development is situated in Flood Zone 1, with small areas of the Order Limits located in Flood Zones 2 and 3. No critical infrastructure is located outside of Flood Zone 1.

5.17.12. ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy (Document Reference 6.4.10.1) provides a site-specific Flood Risk Assessment. It is considered that this assessment is proportionate to the scale, nature and location of the project and meets the minimum requirements of the NPS. It identifies how flood risk and surface water will be managed during the operational phases of the Proposed Development and provides an overview maintenance plan for the drainage mitigations proposed. The detailed design of drainage would be secured via requirement 3 of the draft DCO (Document Reference 3.1).

5.17.13. The FRA is taken into account within the wider hydrology assessment provided in ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10), which concludes no significant effects resulting from the Proposed Development.

5.17.14. Resilience to impacts from climate change has been assessed within ES Appendix 5.2 Climate Change Resilience (CCR) Assessment (Document Reference 6.4.5.2), with risk reduced through mitigation, design, and an extreme weather working policy. It concludes there would be no significant effects. Furthermore, rainfall patterns due to climate change are taken into consideration in ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy (Document Reference 6.4.10.1).

5.17.15. As set out in ES Chapter 3 Alternatives and Design Iteration (Document Reference 6.2.3), flood risk was a constraint considered in the initial siting of the Proposed Development. ES Appendix 10.1 Flood Risk Assessment and Drainage Strategy (Document Reference 6.4.10.1) further identifies how critical infrastructure has been sited and designed to avoid flood risk impacts. This includes:

- no critical infrastructure has been placed inside of the fluvial or pluvial higher risk flood zones
- access tracks are at grade
- the crossing proposed over the Bishopton Beck will utilise an existing bridge crossing
- the solar PV modules will be 800mm above the ground, placing them above the 1.0% pluvial flood level used to approximate the fluvial flood level.

5.17.16. It is concluded that the Proposed Development will be safe for its lifetime and will not impact flood risk on site or off site. The infrastructure is positioned such as not to impede flow routes and will have a negligible impact on floodplain storage.

5.17.17. In relation to drainage design, the overarching principle of the drainage strategy for the Proposed Development is to provide SuDS at source, ensuring that surface water run-off is managed as per existing site conditions. Formal SuDS features including engineered pipe runs, manholes and storage features are not proposed due to the nature of the development and the perceived minimal impact on surface water runoff. The proposed drainage scheme therefore comprises of grassland/wildflower mix under the solar PV panels; an apron of clean crushed stone for BESS and other supporting infrastructure; and permeable aggregate over geotextile membrane for access tracks, requiring no drainage. Whilst 2 new crossings over watercourses (minor tributaries of the River Skerne and Little Stainton Brook) are required, the design of new watercourse crossings will be agreed with the Lead Local Flood Authority prior to construction and will be designed to ensure fish and mammal movement is not restricted.

Water quality

5.17.18. An assessment under the Water Framework Directive is included within ES Appendix 10.2 Water Framework Directive Assessment (Document Reference 6.4.10.2). Regard

is had to the relevant River Basin Management Plans in ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10). ES Chapter 10 concludes no significant effects resulting from the Proposed Development.

5.17.19. As reported in ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10), the proposed layout of access tracks would result in 2 new crossings over existing watercourses (minor tributaries of the River Skerne and Little Stainton Brook) and the adoption of 7 existing crossings.

5.17.20. The design of new watercourse crossings will be agreed with the Lead Local Flood Authority prior to construction. Guidance on the sizing, design and construction of the crossings will be taken from the CIRIA Culvert Design and Operation Guide. The crossings will be designed to ensure they do not disconnect the watercourses at times of low flow and will be designed with appropriate freeboard for flood flow capacity. They will be designed to ensure fish and mammal movement is not restricted, increased erosion will not occur and have a buried invert so the natural bed formation remains in situ.

5.17.21. ES Chapter 10 Hydrology and Flood Risk (Document Reference 6.2.10) sets out that a Construction Surface Water Management Plan (CSWMP) would be produced prior to construction as secured by ES Appendix 2.6 Outline CEMP (Document Reference 6.4.2.6). ES Appendix 2.9 Outline Pollution and Spillage Response Plan (Document Reference 6.4.2.9) also sets out how pollution risks would be mitigated during construction. Implementation of these measures is secured via requirement 7 of the draft DCO (Document Reference 3.1).

5.17.22. The Proposed Development is predominantly located in the lowest risk flood zone and has incorporated good design principles that would ensure it is resilient to climate change and flood events, whilst not increasing or adversely impacting the existing water environment and flood risk. The Proposed Development has been assessed as having no significant effects relating to flood risk or the water environment, and is therefore considered compliant with policy.

6. Planning balance and conclusion

6.1. The planning balance

6.1.1. The SoS is directed under the Act to determine the application for the Proposed Development with regard to the relevant NPSs, designated on 17 January 2024, the local impact report, matters prescribed in relation to the Proposed Development, and any other matters regarded by the SoS as important and relevant.

6.1.2. It is considered that crucial to the determination of the Proposed Development, and the overall planning balance, is the strength of the needs case that has been established through the recent designation of the revised energy NPSs. This defines low carbon energy infrastructure as a critical national priority (CNP), which is integral to meeting legally binding Government decarbonisation targets and delivering ambitious national strategies to achieve net zero, increase affordability of energy and improve energy security. The Proposed Development, a solar generation NSIP with associated battery storage, is low carbon infrastructure and its needs case is therefore afforded the very substantial weight set out in NPS EN-1.

6.1.3. NPS EN-1 makes clear that subject to consideration of the impacts of the project and the application of the mitigation hierarchy, any residual impacts of CNP infrastructure should not outweigh the urgent need for its delivery. It states at paragraph 4.2.15:

"*Where residual non-HRA or non-MCZ impacts remain after the mitigation hierarchy has been applied, these residual impacts are unlikely to outweigh the urgent need for this type of infrastructure. Therefore, in all but the most exceptional circumstances, it is unlikely that consent will be refused on the basis of these residual impacts*"

6.1.4. The exceptions to this presumption of consent, for development which does not have residual impacts relating to HRA or MCZ (such as the Proposed Development) are only if the residual impacts would:

"*present an unacceptable risk to, or interference with, human health and public safety, defence, irreplaceable habitats or unacceptable risk to the achievement of net zero. Further, the same exception applies to this presumption for residual impacts which present an unacceptable risk to, or unacceptable interference offshore to navigation, or onshore to flood and coastal erosion risk.*"

6.1.5. Subsequently, it is considered most relevant to establish the planning balance by identifying the benefits of the Proposed Development, its residual adverse impacts and whether any of those impacts present an unacceptable risk as identified above. These are considered in turn below.

Benefits of the Proposed Development

6.1.6. The need for the Proposed Development is established and urgent. Its delivery would respond to this need and is a form of energy generation that is quick to deploy. The Applicant has demonstrated that funding and a grid connection are secured, creating a viable source of renewable energy generation that could start contributing to the national grid in a shorter timescale than other forms of energy infrastructure. The Proposed Development, by co-locating energy storage, would also provide a flexible supply of energy to the grid, enabling it to respond to fluctuations in need. The contribution of the Proposed Development to reducing greenhouse gas emissions is reflected in ES Chapter 5 Climate Change (Document Reference 6.2.5) as a significant beneficial effect.

6.1.7. The Proposed Development has also been assessed as providing a beneficial effect on soil resources (at point of decommissioning) and employment and supply chain opportunities. In terms of enhancement, the Proposed Development would deliver an overall biodiversity net gain which is in significant excess of the 10% which may in the future be required by the Environment Act 2021. It is currently projected that the Proposed Development would deliver an anticipated 88% net gain in habitats and 108% net gain in hedgerows. Over a 40 year operational period, the Proposed Development would deliver biodiversity improvements and facilitate nature recovery through a range of enhancement measures secured through the DCO.

6.1.8. In addition to enhancement to the natural environment, the Proposed Development would deliver benefits to the local community through enhanced access and historic interpretation. A total of approximately 3600m of permissive paths will be implemented during the construction stage of the Proposed Development. The new routes would connect into the existing footpath networks, enhancing local connectivity. Interpretation would be provided at points of interest along the PRoW network, in the Panel Area E amenity area and permissive routes through the Panel Areas, and would include reference to the First World War airfield, an undesignated heritage asset of the area. In Bishopton, the provision of a new community orchard, a forest school/sensory garden facility and a car park for the Bishopton Redmarshall Primary School would seek to support the local community's engagement with and enjoyment of the countryside.

Residual adverse impacts of the Proposed Development

6.1.9. Chapter 5 of this Statement set out the overall position of the Proposed Development in relation to the relevant policy topics, with particular emphasis on any residual effects that would occur as identified through environmental assessment and taking into account the application of good design in applying the mitigation hierarchy, to avoid or reduce effects wherever feasible. It is clear from this appraisal that the Proposed Development would result in an overall limited number of residual adverse effects. The Proposed Development would have no significant adverse effects on designated landscapes, designated ecological sites, protected species or designated and

undesignated heritage assets. It would have no significant adverse effects on transport, waste, air quality, aviation, health or in cumulation with other developments.

6.1.10. A moderate adverse effect would occur on soil resources during construction, due to the use of land for the Proposed Development. However, as set out in Chapter 5 and highlighted above, this is a temporary effect given that at the point of decommissioning, this land would return to its agricultural use and would benefit from a positive effect through improved soil health. This matter is considered within the context of an overall low proportion of BMV land affected, at only 6% of the Order Limits.

6.1.11. The Proposed Development would result in significant adverse effects in relation to landscape and visual receptors. This includes the local character areas of Darlington, Great Stainton and Bishopton; to views at Great Stainton and Bishopton; and to views from some stretches of PRoW. As reflected in NPS policy, some visual effects from energy infrastructure are highly likely to occur due to the nature of the development. The effects identified for the Proposed Development are largely during operation and would therefore be reversible upon decommissioning; the temporary nature of the Proposed Development is secured via the DCO.

6.1.12. Potential impacts to the landscape have been considered from the outset of the siting and design of the Proposed Development, with the design amended iteratively to respond to assessment findings and feedback. The approach to design took into account the existing landscape context, which informed the proposals for mitigation, following the mitigation hierarchy. The significant effects identified are residual, following the application of that hierarchy. It must also be noted that some of the significant adverse effects identified relate to specific assessment of effects on local settlements, a more granular level of assessment that is not generally reflected in DCO applications. This has been undertaken following engagement with the LPA and in order to work collaboratively to address concerns in the pre-application period.

6.1.13. The final significant adverse effect identified is in relation to noise. This would be short-term and is due to construction and decommissioning activities. During operation, which is the majority of the timescale for the Proposed Development, there would be no significant effects relating to noise, due to implementation of good design principles in the siting, layout and equipment selection of the Proposed Development.

6.1.14. As summarised above, residual adverse impacts of the Proposed Development relate to three areas: soil, landscape/visual and noise. None of these effects present unacceptable risks to the matters identified in NPS EN-1.;

6.2. Conclusion

6.2.1. In accordance with the provisions of the NPSs, it is concluded that the limited residual effects of the Proposed Development do not outweigh its urgent need, 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 benefit

than adverse effects, and would contribute to an urgent national need for low carbon infrastructure. **It is concluded that development consent should be granted.**

References

[1] HM Government, "The UK Low Carbon Transition Plan: national strategy for climate and energy," July 2009. [Online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/228752/9780108508394.pdf. [Accessed 08 November 2023].

[2] Committee on Climate Change, "Progress in reducing emissions: 2023 Report to Parliament," June 2023. [Online]. Available: https://www.theccc.org.uk/wp-content/uploads/2023/06/Progress-in-reducing-UK-emissions-2023-Report-to-Parliament-1.pdf. [Accessed 08 November 2023].

[3] Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy, "Energy white paper: Powering our net zero future," 14 December 2020. [Online]. Available: https://www.gov.uk/government/publications/energy-white-paper-powering-our-net-zero-future. [Accessed 08 November 2023].

[4] Department for Energy Security and Net Zero and Department for Business, Energy & Industrial Strategy, "Net Zero Strategy: Build Back Greener," 19 October 2021. [Online]. Available: https://assets.publishing.service.gov.uk/media/6194dfa4d3bf7f0555071b1b/net-zero-strategy-beis.pdf. [Accessed 08 November 2023].

[5] Department for Energy Security and Net Zero, "Powering up Britain," 30 March 2023. [Online]. Available: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1147340/powering-up-britain-joint-overview.pdf. [Accessed 08 November 2023].

[6] Department for Energy Security and Net Zero, Prime Minister's Office and 10 Downing Street, "British energy security strategy," 07 April 2022. [Online]. Available: https://assets.publishing.service.gov.uk/media/626112c0e90e07168e3fdba3/british-energy-security-strategy-web-accessible.pdf. [Accessed 08 November 2023].

[7] Energy and Climate Intelligence Unit, "The Cost of Gas since the Russian Invasion of Ukraine," 21 February 2023. [Online]. Available: https://eciu.net/analysis/reports/2023/the-cost-of-gas-since-the-russian-invasion-of-ukraine#:~:text=The%20UK%20has%20spent%20an,pandemic%20and%20the%20gas%20crisis.. [Accessed 09 November 2023].

[8] National Grid, "How will our electricity supply change in the future?," National Grid, 17 August 2022. [Online]. Available: https://www.nationalgrid.com/stories/energy-explained/how-will-our-electricity-supply-change-future. [Accessed 22 September 2023].

[9] National Grid, "Future Energy Scenarios 2022," July 2022. [Online]. Available: https://www.nationalgrideso.com/document/263951/download. [Accessed 23 10 2023].

[10] Reuters, "EDF's UK Hinkley Point nuclear plant start date delayed again, costs mount," 25 January 2024. [Online]. Available: https://www.reuters.com/business/energy/edfs-nuclear-project-britain-pushed-back-2029-may-cost-up-34-bln-2024-01-23/. [Accessed 5 February 2024].

[11] House of Commons Library, "Planning for onshore wind," 05 October 2023. [Online]. Available: https://commonslibrary.parliament.uk/research-briefings/sn04370/. [Accessed 09 November 2023].

[12] Office for Budget Responsibility, "An international comparison of the cost of energy support packages," March 2023. [Online]. Available: https://obr.uk/box/an-international-comparison-of-the-cost-of-energy-support-packages/#:~:text=The%20cost%20of%20the%20initial,households%20received%20in%20April%202022.. [Accessed 09 Novermber 2023].

[13] Department for Energy Security and Net Zero, "Electricity generation costs 2023," 04 08 2023. [Online]. Available: https://assets.publishing.service.gov.uk/media/652fa0b56b6fbf000db75881/electricity-generation-costs-2023.pdf. [Accessed 23 10 2023].

[14] Department for Energy Security & Net Zero, "Overarching National Policy Statement for Energy (EN-1)," 17 January 2024. [Online]. Available: https://assets.publishing.service.gov.uk/media/65a7864e96a5ec0013731a93/overarching-nps-for-energy-en1.pdf. [Accessed 23 January 2024].

[15] Department for Energy Security and Net Zero, "National Policy Statement for Renewable Energy Infrastructure," 17 January 2024. [Online]. Available: https://www.gov.uk/government/publications/national-policy-statement-for-renewable-energy-infrastructure-en-3. [Accessed 23 January 2024].

[16] Department for Levelling Up, Housing and Communities, "National Planning Policy Framework," December 2023. [Online]. Available: https://assets.publishing.service.gov.uk/media/65829e99fc07f3000d8d4529/NPPF_December_2023.pdf. [Accessed 4 January 2024].

[17] Darlington Borough Council, "Darlington Local Plan 2016 - 2036," February 2022. [Online]. Available: https://www.darlington.gov.uk/media/16694/local-plan-adopted-feb22v2.pdf. [Accessed 13 November 2023].

[18] The Boroughs of Darlington, Hartlepool, Middlesbrough, Redcar and Cleveland and Stockton-on-Tees, "Tees Valley Joint Minerals and Waste Development Plan Documents: Core Strategy DPD," September 2011. [Online]. Available: https://www.middlesbrough.gov.uk/media/ec0bfmsm/planning-policy-minerals-waste-stategy-dpd.pdf. [Accessed 13 November 2023].

[19] Stockton-on-Tees Borough Council, "Stockton-on-Tees Borough Council Local Plan," January 2019. [Online]. Available: https://www.stockton.gov.uk/media/2518/Local-Plan-2019/pdf/Local_Plan_2019.pdf?m=637810468860870000. [Accessed 13 November 2023].

[20] Stockton-on-Tees Borough Council, "Supplementary Planning Document 1: Sustainable Design Guide," October 2011. [Online]. Available: https://www.stockton.gov.uk/media/3040/Supplementary-Planning-Document-Sustainable-design-guide/pdf/Supplementary_Planning_Document_-_Sustainable_design_guide.pdf?m=637817467491870000. [Accessed 13 November 2023].

[21] Durham County Council, "County Durham Plan," 2020. [Online]. Available: https://www.durham.gov.uk/media/34069/County-Durham-Plan-adopted-2020-/pdf/CountyDurhamPlanAdopted2020vDec2020.pdf?m=637725862605900000. [Accessed 13 November 2023].

[22] Durham County Council, "Solar Energy Supplementary Planning Document 2023 (Consultation Draft)," 2023. [Online]. Available: https://consult-durhamcc.objective.co.uk/kse/event/37471. [Accessed 13 November 2023].