



**Installation of a solar array, substation and associated
works forming an extension to Blythe Solar Farm (ref:
SMD/2022/0160)
Planning Statement**

Innova Renewables Developments Limited

REPORT REF: 613/PS

November 2023

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Document issue record

Version	Prepared by	Reviewed by	Approved for issue	Issue to	Date
1	HD	PD	PD	NJ	01.09.2023
2	HD	MW	PD	NJ	24.10.2023
3	HD	MW	PD	LPA	13.11.2023
4	HD	NJ	PD	LPA	16.02.2024

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Executive Summary

Corylus Planning and Environmental Limited was instructed by Innova Renewables Developments Limited to prepare and submit a full planning application to Staffordshire Moorlands District Council for the installation of a solar array, substation and associated works forming an extension to Blythe Solar Farm (ref: SMD/2022/0160) at Blythe House Farm, Upper Tean, ST10 4JN.

The Site is located approximately 1.5 km to the south-west of Draycott in the Moors and approximately 2km to the south-east of Upper Tean. The site is positioned between the A50 trunk road to the north west and the Derby to Crewe railway line to the south east.

The majority of the Site lies within the parish of Checkley with the Site access lying within the parish of Draycott in the Moors. The Site area measures 24.14ha with an additional 5.44ha proposed for ecological mitigation. The majority of the Site comprises low grade agricultural land and lies within Flood Zone 1. The Proposed Development includes solar arrays, supporting infrastructure and substation and is intended to operate as part of the previously approved Blythe solar farm (LPA reference SMD/2022/0160).

The proposed solar farm would have an export capacity of approximately 17.6MW and will save approximately 3,274 tonnes of carbon dioxide per year¹. The final power output of the project may increase in the future due to increasing efficiency in solar panel technology.

The potential impacts of the proposed development have been assessed by a series of technical assessments which have demonstrated that it will not be harmful. The proposed development would not increase flood risk on or off the site, it would not result in unacceptable heritage impacts, and construction vehicles can be satisfactorily managed within the local highway network.

The application has been supported by ecological surveys which have informed a proposed landscape and ecological mitigation scheme. This has resulted in a Biodiversity Net Gain of the proposals would result in a net gain of 62.33 habitat units (90.73%), a net gain of 2.06 hedgerow units (10.28%), and a net zero gain/loss in river units.

A Landscape and Visual Impact Assessment has assessed the potential impact of the development upon the character and appearance of the landscape and regard has also been had to the cumulative impact of the proposed development with approved and proposed solar farm developments in the area. The retention of key landscape features and additional planting will reduce the visual impact of the development and lessen the cumulative impact upon the landscape overall, should all those planned projects go ahead. The overall harm that would result from the proposed development to the character and appearance of the landscape would be limited and would be outweighed by the public benefits of the proposal, the overriding benefit being the delivery of renewable energy and contributing towards a reduction of carbon emissions at a time when it is urgently needed, along with ecological and economic benefits.

The UK has committed to achieving Net Zero by 2050, and at a local level, following the declaration of a Climate Emergency in 2019, Staffordshire Moorlands Council is committed to reaching carbon neutrality by 2030 and by that date, the amount of renewable energy in the District will be 318MW. The proposed solar development accords with the objectives of sustainable development as set out

¹ Greenhouse gas reporting: conversion factors 2021: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>

within the National Planning Policy Framework. Furthermore, it accords with the policies of the adopted Local Plan.

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1 Introduction

1.1 The Application

This planning statement has been prepared on behalf of Innova Renewables Developments Limited ('Innova', the "applicant") to accompany a full planning application for additional areas of solar panels, relocated electrical infrastructure and associated works on land at Blythe House, Draycott in the Moors, ST10 4JN which is submitted to Staffordshire Moorlands District Council (the "LPA").

Innova Renewables Developments Limited (Innova) is a leading UK solar PV and energy storage development company. Innova has extensive experience delivering and operating renewable energy projects around the United Kingdom.

This statement will describe the location and context of the application site and the relevant planning policies. The statement will go on to assess the proposed development against these policies and will consider any relevant material considerations. The planning statement should be read in conjunction with the technical reports and assessments which have been produced to support the application.

1.2 The Proposed Development

The description of the proposed development is as follows:

"Installation of a solar array, substation and associated works forming an extension to Blythe Solar Farm (ref: SMD/2022/0160)."

The proposal forms an extension to the approved solar farm permission at Blythe House Farm (LPA reference SMD/2022/0160). It seeks a 40-year operational period, for the additional approximate 17.6MW of renewable energy generation. It is proposed to relocate the approved substation compound to the proposed extension area to allow for a closer proximity to the point of connection.

The proposed development (alternatively referred to as 'Blythe Solar Farm Extension') is proposed to be constructed at the same time as the previously approved solar farm (to allow for efficiencies in construction vehicles and contain the construction period within the same approximate 16-week period. If planning permission were granted, the proposed solar array would be constructed, and decommissioned, alongside the already consented solar farm, as one project.

The proposed development and the approved Blythe Solar Farm will amount to approximately 43.3MW of solar, therefore remaining under the threshold of a Nationally Significant Infrastructure Project (according to Part 3, Section 15.2(c) of the Planning Act 2008).

1.3 Planning Application Documents

This planning application submission comprises of the following documents:

- Application form, notice letters, covering letter, prepared by Corylus
- Agricultural Impact Assessment, prepared by Kernon Countryside Consultants Limited
- Arboricultural Statement, prepared by Cheshire Woodlands

- Construction Traffic management Plan, prepared by TPA
- Design and Access Statement incorporating Statement of Community Involvement, prepared by Corylus,
- Ecological Impact Assessment, prepared by Tyler Grange
- EIA Screening Request Letter, prepared by JCTR
- Flood Risk Assessment, prepared by Corylus,
- Glint and Glare Assessment, prepared by Neo Environmental
- Historic Environment Desk Based Assessment, prepared by Wessex Archaeology
- Landscape and Visual Impact Assessment, prepared by Corylus
- Noise Impact Assessment, prepared by Acoustic Consultants Ltd
- Planning Statement, prepared by Corylus

2 Site location and context

The proposed development application site (hereafter referred to as “the Site”) is located within open countryside approximately 1.5 km to the south-west of the village of Draycott in the Moors and approximately 2km to the south-east of the village of Upper Tean. The Site is positioned between two elements of linear infrastructure, namely the A50 to the north west trunk road and the Derby to Crewe railway line to the south east.

The majority of the Site lies within the parish of Checkley with the Site access lying within the parish of Draycott in the Moors.

The Site does not lie within a designated landscape.

The Site comprises agricultural land and adjacent to land which has recently been the subject of a planning permission secured by the applicant for a solar farm (LPA reference SMD/2022/0160). For the purposes of this statement that solar farm development will be referred to as the “approved Blythe Solar Farm”. There is an existing solar farm referred to as the “built Lower Newton Solar Farm” in close proximity to the Site, which is neither owned nor operated by the applicant.

The Site comprises two parcels of land; the northern parcel measures approximately 6.95 hectares. It lies to the south of the A50 and includes three fields enclosed by hedgerows. The western field formed part of the site area for the approved Blythe Solar Farm, although solar panels were not approved within this field. The southern parcel comprises three fields located to the north of the railway line, measuring approximately 24.14 hectares, with an adjacent area measuring 5.44 hectares identified for ecological mitigation.

The Public Right of Way (PRoW) “Checkley 5” follows the route of an existing farm track through the northern parcel of land, along the eastern boundary of approved Blythe Solar Farm and through the southern parcel of land. The PRoW “Checkley 7” runs along the northern part of the northern boundary of the southern parcel and the PRoW “Checkley 15” follow a NE-SW route through the ecological mitigation area.

There is an existing overhead 132kV electricity line which runs along the southern boundary of the southern parcel of land.

3 The proposed development

3.1 Solar panels

3.1.1 The Technology

Solar farms generate electricity from sunlight using photovoltaic panels. The panels are mounted on to a framing system which is fixed into the ground. The panels are dark in colour and tilted to absorb as much light as possible. Although the reference is to “sunlight”, the panels actually absorb daylight (i.e visible light) so will continue to generate electricity, even on a cloudy day.

Electricity generated by the panels is in Direct Current (DC) form and converted to Alternating Current (AC) form by inverters. Voltage is stepped up by transformers within the solar farm. From these, the electricity flows through underground cabling to a client substation and then to the Distribution Network Operator (DNO) substation to be exported to the local grid network.

Solar farms are now a relatively common feature within the landscape and will increasingly become so as traditional fossil fuelled electricity generation is replaced by renewables. The development of solar farms in the UK was stimulated over the period 2011-2017 by the availability of Government subsidies. These are no longer available, but new solar farms are viable without them due to improvements in technology which has resulted in more efficient, longer lasting panels.

3.1.2 The Proposed Solar Farm

The layout of the proposed solar farm is shown on plan number BF-613-01H . The proposed solar farm will be adjacent to the approved Blythe Solar Farm and will be operated as an extension to that solar farm.

The northern parcel of the Site will be accessed from the west, utilising the access approved for Blythe Solar Farm, i.e to the north-west of the farm buildings at Upper Newton Farm. The southern parcel will be accessed by a separate access track which will utilise an existing access to the south-west of Upper Newton Farm.

The export capacity of the additional areas will be approximately 17.6MW.

The solar panels will be as per the panels approved for the Blythe Solar Farm, i.e they will have a maximum height of panels above ground of 3.1 m and the angle of tilt approximately 20-25 degrees. String inverters will be sited to the rear of the panels and they will connect to stand-alone transformers which will convert and distribute the electricity generated by the panels from DC electricity to AC electricity.

Within the northern parcel of the Site, there will be one pair of transformers and a storage container. Within the southern parcel, there will be three pairs of transformers and one storage container. The storage containers will be used for the storage of spare components and equipment required for the on-going management and maintenance of the site when it is operational.

The installation will be fenced to a maximum height of 2 metres with deer fencing, including openings to allow wildlife travel into and across the site. The site will be monitored by CCTV mounted on poles and no external lighting is proposed. Examples of the supporting infrastructure can be found within the accompanying Design and Access Statement.

3.1.3 Electrical infrastructure compound

The electricity generated from the solar panels will be fed into the National Grid via the existing overhead line. This will require supporting electrical infrastructure contained within a compound, surrounded by palisade fencing. This will house the switch room, transformers, capacitor banks, relay rooms and storage area. The details are as previously approved for Blythe Solar Farm, however the position of the substation has been relocated within this application. Due to this, where this application is approved. The substation will be constructed within the updated position only.

The relocation of the electrical infrastructure compound adjacent to the overhead cables will enable the installation of a more efficient connection to the Grid.

3.2 Construction, operation and decommissioning

To assist in providing a flexible decision it is requested that a five-year implementation period is attached to the decision notice through condition. Alternatively, to ensure consistency the LPA can tie the implemented date to the original planning permission, under condition 1, which would be 01.02.2028.

The construction period for the proposed development is expected to take 16 weeks and a Construction Traffic Management Plan has been submitted with the application.

Once operational, the solar farm will require 1-2 visits per month for maintenance. It is envisaged that such trips will be made by cars or small/medium sized vans.

The operational period of the solar farm will be 40 years from the first export of electricity. At the end of this period, the site will be decommissioned. All structures and hard surfacing will be removed, and the land will be restored to agricultural use.

The decommissioning and restoration processes will be controlled by a decommissioning statement to be secured by a planning condition. After the site has been decommissioned, the land will revert to agricultural use and will not be considered by the LPA to be "Brownfield" or "Previously Developed Land" (PDL). The NPPF defines PDL as *"Land which is or was occupied by a permanent structure, including the curtilage of the developed landand any associated fixed surface infrastructure. This excludes: land that is or was last occupied by agricultural or forestry buildings; land that has been developed for minerals extraction or waste disposal by landfill, where provision for restoration has been made through development management procedures; land in built-up areas such as residential gardens, parks, recreation grounds and allotments; and land that was previously developed but where the remains of the permanent structure or fixed surface structure have blended into the landscape"*.

The solar farm will be a temporary development and provision will be made for the restoration of the site through the requirement for a decommissioning plan. Therefore, the decommissioned solar farm will not be considered to be PDL in accordance with the current definition within the NPPF.

4 Planning policy and legislation

4.1 Moving towards net zero

Carbon dioxide (CO₂) is a major contributor to global warming, causing climate change. That is why the Government has committed to reduce carbon emissions. In 2016, the UK signed the Paris Agreement, which is a global agreement between nations to reduce global warming, specifically to keep the increase in global temperature to below 2° C above pre-industrial levels and to pursue efforts to limit the increase to 1.5° C. There has been an increasing emphasis on achieving Net Zero as temperatures continue to rise globally.

The Government Energy white paper, *Powering our Net Zero Future* (December 2020) confirms that *“Our energy system is dominated by the use of fossil fuels and will need to change dramatically by 2050 if we are to achieve net zero emissions”*. It also confirms that *“Clean electricity will become the predominant form of energy”*.

This underlines three key aspects:

- the reliance on electricity as a power source (rather than fossil fuels) will dramatically increase;
- the electricity will be produced from sources with fluctuating supply;
- therefore a significant increase in the deployment of electricity storage will be required.

Following the Covid-19 pandemic, in March 2021 the Government issued the *“Build Back Better”* plan for future growth. The UK was noted as a world leader in clean growth and employment opportunities within green industries: *“The private sector will lead the transition to net zero, within a policy environment designed to support investment and innovation”*.

In April 2021, the UK Government’s target to cut emissions by 78% by 2035 compared to 1990 levels was set out in law. This new target is described as being *“one of the most ambitious climate targets in the world”*. Six months later, the UK Government committed to decarbonise the country’s electricity system by 2035, 15 years ahead of the commitment made in the Energy White Paper.

In January 2022, the Government published the report *“UK Climate Change Risk Assessment 2022”* which states that *“the average surface temperature in the UK has risen by 1.2°C since pre-industrial times, and further warming is predicted under all decarbonisation pathways set out by the Intergovernmental Panel on Climate Change . While we aim to limit warming to 1.5°C, the evidence shows that we must be prepared for warming up to 4°C.”*

Following on from that report, in April 2022, the Government published the British Energy Security Strategy² The document sets out the Government’s strategy for the delivery of a flow of energy that is affordable, clean and secure. The importance of reducing the Country’s reliance upon imported oil and gas is stressed, as accelerating the Country’s supply of clean and affordable electricity.

More recently, in February 2023, the report *“Mission Zero-Independent review of Net Zero”* was published. The report identified that to meet the target of the UK being net zero by 2050, 70GW of renewable energy, generated by solar, needs to be achieved by 2035. The report notes that solar

² [British Energy Security Strategy \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/115111/bess-2022.pdf)

power is recognised as “one of the cheapest forms of energy”. The report also identifies that delays and inconsistencies within the planning process are barriers to achieving progress towards net zero.

“Powering up Britain” is the Government’s blue print for the future of energy in the UK. Published in March 2023, it sets out the action to be taken to achieve both energy security and net zero objectives. It builds upon the recommendations of the Independent Review.

Despite changes by the Government to net zero policies and targets in the Autumn of 2023, the target of a 75% reduction in emissions by 2035 and net zero by 2050 have not changed.

There is clearly a continuing need for action to reduce emissions to achieve net zero, and for low carbon electricity and this has been evidenced by “State of the UK Climate 2022” report.³ This report identified the following:

- Recent decades have been warmer, wetter and sunnier than the 20th century
- The observations show that in the UK extremes of temperature are changing much faster than the average temperature.
- The UK has warmed at a broadly consistent but slightly higher rate than the observed change in global mean temperature.
- The UK's record warm year of 2022 and unprecedented July heatwave were both made more likely by climate change.
- 2022 was the warmest year in the UK series from 1884, 0.9 C above the 1991–2020 average. It was the first year to record a UK annual mean temperature above 10C.
- Winter, spring, summer and autumn 2022 were all ranked in the top 10 warmest seasons for the UK in series from 1884 (winter from 1885).
- Since the 1900s, the sea level around the UK has risen by about 18.5 cm. Over the past 30 years (1993–2022) the sea level has risen by 11.4 cm.

At a local level, Staffordshire Moorlands Council declared a climate emergency on 10th July 2019 and Staffordshire County Council declared a climate emergency on 25th July 2019. The Council has published the Climate Action Plan Part 1, Part 2. This latter document sets out a Vision that Staffordshire Moorlands will become carbon neutral by 2030 and by that date, the amount of renewable energy in the District will be 318MW.

4.2 Planning Policy

4.2.1 Local Plan

The starting point for the determination of any planning application is set out in law within Section 38(6) of the Planning and Compulsory Purchase Act 2004. This states that *“If regard is to be had to the development plan for the purpose of any determination to be made under the planning Acts the determination must be made in accordance with the plan unless material considerations indicate otherwise”*.

The relevant Development Plan is the Staffordshire Moorlands Local Plan, adopted in September 2020.

³ International Journal of Climatology, 26th July 2023

The policies that are of particular relevance to the consideration of the application are those that relate to renewable energy, heritage, biodiversity and landscape.

- SS1 Development Principles
- SD 1 Sustainable Use of Resources
- SD 2 Renewable/Low carbon Energy
- SD 5 Flood Risk
- DC 2 The Historic Environment
- DC 3 Landscape and Settlement Setting
- C3 Green Infrastructure
- NE1 Biodiversity and Geological Resources
- NE2 Trees Woodland and Hedgerows.

4.2.2 Checkley Parish Neighbourhood Development Plan (NDP)

The additional fields proposed within this application lie within the Checkley Parish NDP area.

The policy DES3 (Landscape and Rural Character) within the draft NDP provides protection for landscape character, habitats and landscape features. Development must complement the rural character of the area and preserve or enhance wildlife habitats, ecology, local landscape character, and landscape features. The interpretation notes for this policy advise that *particular attention should be paid to the impacts of large-scale interventions, such as solar farms. In addition, the cumulative impacts of different development s should be considered.*

The draft NDP has been the subject of an independent examination in July 2023 and the examination was paused to enable the Parish Council to address the representations of other parties. The examination commenced in September 2023. At the time of the drafting this Planning Statement, the Inspector's report on the NDP has not yet been received and the draft NDP has not yet been to a referendum. Due to this, the weight that can be afforded to the NDP is limited.

4.2.3 National Planning Policy Framework

The National Planning Policy Framework (NPPF) (December 2023) is a material consideration. It has at its heart, three overarching and interdependent objectives of sustainable development which are environmental, economic and social.

The NPPF supports proposals for renewable and low carbon energy. Paragraph 163 states that when determining planning applications for renewable and low carbon development, local planning authorities should not require applicants to demonstrate the overall need for renewable or low carbon energy and should approve the application if its impacts are (or can be made) acceptable.

4.2.4 National Planning Practice Guidance

Planning Practice Guidance (PPG) is an online source which supplements the NPPF.

Paragraph: 013 Reference ID: 5-013-20150327 (Revision date 27 03 2015) sets out the particular planning considerations that relate to large scale ground-mounted solar photovoltaic farms which a local planning authority will need to consider, including:

- where a proposal involves greenfield land, whether (i) the proposed use of any agricultural land has been shown to be necessary and poorer quality land has been used in preference to higher quality land; and (ii) the proposal allows for continued agricultural use where applicable and/or encourages biodiversity improvements around arrays⁴.
- that solar farms are normally temporary structures and planning conditions can be used to ensure that the installations are removed when no longer in use and the land is restored to its previous use;
- the proposal's visual impact, the effect on landscape of glint and glare and on neighbouring uses and aircraft safety;
- the need for, and impact of, security measures such as lights and fencing;
- great care should be taken to ensure heritage assets are conserved in a manner appropriate to their significance;
- the potential to mitigate landscape and visual impacts through, for example, screening with native hedges;
- the energy generating potential, which can vary for a number of reasons including, latitude and aspect.
- in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.

4.2.5 National Policy Statements

National Policy Statements (NPS) have been produced by the Government for the delivery of Nationally Significant Infrastructure Projects, including energy projects. They are a material consideration for this application. Amended Policy Statements were issued in January 2024.

The role of renewable energy generation is discussed within the Overarching National Policy Statement for Energy (EN-1). Paragraph 3.3.20 states that "...Wind and solar are the lowest cost ways of generating electricity , helping reduce costs and providing a clean and secure source of electricity supply... a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar".

NPS EN-3 (Renewable Energy Infrastructure) notes, at paragraph 2.10.9, that solar is a key part of the Government's strategy for low-cost decarbonisation of the energy sector. Solar farms are noted to be one of the most established renewable technologies in the UK and the cheapest form of electricity generation (paragraph 2.10.13).

The network connection of a solar farm is discussed within EN-3. The capacity of the local grid network to accept the likely output from a proposed solar farm is critical to the technical and commercial feasibility of a development proposal (paragraph 2.10.22). EN-3 goes on to advise at paragraph 2.10.24 that *"...the connection voltage, availability of network capacity, and the distance from the solar farm to the existing network can have a significant effect on the commercial feasibility of a development proposal"*.

⁴ Reference: a speech by the Minister for Energy and Climate Change, the Rt Hon Gregory Barker MP, to the solar PV industry on 25 April 2013 and written ministerial statement on solar energy: protecting the local and global environment made on 25 March 2015

5 Planning considerations

5.1 Principle of solar farm development

The need for renewable and low carbon sources of energy is made very clear in the legislation committing the UK to a zero-carbon economy, and within National and Local policy.

Policy SD2 (Renewable/Low-Carbon Energy) of the adopted Local Plan supports the development of both small and large scale renewable energy or low-carbon energy schemes subject to a number of considerations, including:

- the degree to which the scale and nature of a proposal impacts on the landscape, particularly having regard to relevant Landscape Character evidence and impact on the Peak District National Park (taking into account both individual and cumulative effects of similar proposals);
- the degree to which the developer has demonstrated any environmental/economic/social benefits of a scheme, as well as how any environmental or social impacts have been minimised (e.g. visual, noise or smell);
- the impact on designated sites of European (or successor), national and local biodiversity and geological importance in accordance with policy NE 1;
- the impact on the amenity of residents and other interests of acknowledged importance, including the historic environment;
- the degree to which individual proposals reflect current local evidence regarding the feasibility of different types of renewable or low-carbon energy at different locations across the District;
- in the case of solar energy proposals that are not affixed to buildings or structures, applicants will be expected to demonstrate that they have examined whether previously developed land is available before greenfield land. Where agricultural land is proposed, poorer quality land should be utilised before higher quality agricultural land.

This section of the statement will discuss the justification for the selection of the Site and will demonstrate how the proposed solar farm will not result in demonstrable harm. It will also demonstrate how the development will include deliverable mitigation and enhancement measures.

5.2 Site Selection

5.2.1 Previously Developed Land

Local Plan policy SD 2, advises that that applications for solar farms should demonstrate why previously developed land is not available, before a greenfield site can be considered.

As with the planning application for approved Blythe Solar Farm, the LPA's Brownfield Register (2022) has been reviewed. Thirty-nine sites are listed, of which only three do no benefit from an extant planning permission or allocation within the Local Plan. Two sites are under 0.1ha and the other site at 0.37ha (London Leek Mill LE079) is a relatively small, constrained site within an urban area and unsuitable for a solar farm.

5.2.2 Relationship with Approved Blythe Solar Farm

The overriding factor for the selection of the Site is the proximity of it to the previously approved solar farm and the availability of a Point of Connection to the National Grid.

The areas of solar panels proposed within this application will operate as part of the approved Blythe Solar Farm. The combined site will have an export capacity of approximately 45.3MWp. There are a number of significant benefits to this, the primary being the full utilisation of the available Grid connection at a time when the UK renewables industry is experiencing delays over Grid connections. The National Grid itself has reported in early 2023 that there are about 600 renewable energy projects with a combined capacity of 176GW in the queue in England and Wales against 64GW of connected capacity ⁵.

The additional areas of solar panels will also ensure the viability of the project. The Approved Blythe Solar Farm project was in development for over two years and during that time, due to various factors including rising inflation, the costs of equipment and infrastructure have risen significantly.

5.3 Agricultural Land Classification

The Agricultural Land Classification (“ALC”) system classifies land into five grades (1-5), with Grade 3 subdivided into sub-grades 3a and 3b. The ‘best and most versatile’ land (BMVL) is defined as Grades 1, 2 and 3a; this is considered to be land which is most flexible, productive and efficient in responses to inputs and which can best deliver food and non-food crops for future generations.

Policy SD 2 advises that where agricultural land is to be used for a solar farm, poorer quality land should be used over BMVL. This reinforces the guidance contained within local plan policy SD 1 (Sustainable Use of Resources) and within the NPPF.

The application is accompanied by an assessment of the Agricultural Land Classification (ALC) undertaken by Kernon Countryside Consultants Ltd. The assessment has identified that the majority of the site is Grade 4 agricultural land with only 2% of the total site area being higher grade (Grade 3a). This majority of this area of BMVL would be underneath an area of solar panels and would not be lost permanently as the panels would be fixed into the ground with piles resulting in limited soil disturbance. The panels could be removed in the future with no permanent loss of soils, subject to a decommissioning scheme to be agreed by the LPA. An access track and infrastructure would be located within the area of BMVL and excavated soil will be stored on site as bunds.

An additional benefit resulting from the proposed solar farm, will be taking the soils out of intensive arable practices such as frequent tilling and ploughing for up to 40 years which will be beneficial to carbon storage. It has been shown through nationwide research, supported by Defra⁶, that 60 per cent of the UK’s total soil carbon is stored in grasslands, and also that this carbon is sensitive to the way land has been farmed. Professor Richard Bardgett from The University of Manchester who led the research team said *“Our findings suggest that by managing our grasslands in a less intensive way, soil carbon storage could be important to our future global carbon targets, but will also bring benefits for biodiversity conservation.”*. A recent Science Note by the British Soil Society confirms this

⁵ [Renewables groups sound alarm over UK grid connection delays | Financial Times \(ft.com\)](#)

⁶ Legacy effects of grassland management on soil carbon to depth. 8 Feb 2016 <https://www.manchester.ac.uk/discover/news/huge-carbon-stores-under-grasslands-discovered/>

and states that *“Sequestering carbon in soils and vegetation (by adding more carbon than is lost), is important for long term soil resilience and health”*⁷

Within the updated NPPF, a new footnote (no.62) has been added to paragraph 181, which states that: *“Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality. The availability of agricultural land used for food production should be considered, alongside the other policies in this Framework, when deciding what sites are most appropriate for development”*. It should be noted that this footnote does not sit within Chapter 14 of the NPPF, which addresses the challenges of climate change and flooding and coastal change. Furthermore, paragraph 181 discusses the requirement for plans to allocate land with the least environmental or amenity value for development. Nevertheless, to address this footnote, our comments are as follows:

- The Site comprises 17.3% of the landowners holdings;
- The solar farm will provide a guaranteed additional income to support the landowners agricultural activities at a time when EU funding is no longer available;
- There will be no permanent loss of soils due to the temporary nature of the proposed development;
- Resting the soils from arable farming practices will assist with carbon sequestration, resulting in better quality soils; and
- The landowners will have the potential to graze sheep in the solar array.

5.4 Biodiversity, trees and Green Infrastructure

One of the key objectives of sustainable development, as set out within the NPPF, is an “environmental” objective which is achieved through the protection and enhancement of the natural, built and historic environment through actions such as improving biodiversity and moving to a low carbon economy.

The NPPF advises, at paragraph 180, that planning decisions, amongst other criteria, should *“...contribute to and enhance the natural and local environment by: recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land”*.

The overarching objective of Policy NE1(Biological and Geological Resources) of the adopted Local Plan is to conserve and enhance the biological geological resources of the District by positive management and by the strict control of development. This includes ensuring that all developments, where possible, seek to deliver a net gain in biodiversity proportionate to the size and scale of the development. Mitigation and compensation measures should be appropriately scheduled and managed according to the nature, size and scale of the development.

Policy SD 1 (Sustainable Use of Resources) requires developments to retain ecological connectivity *“...as far as possible”*. Policy C3 (Green Infrastructure) requires, amongst other criteria, that developments create new wildlife habitats, increase biodiversity, and increase tree cover where it is appropriate to the landscape.

⁷ Science Note: Soil Carbon https://soils.org.uk/wp-content/uploads/2021/11/Long_BSSS_Science-Note_FOR-DIGITAL.pdf and https://soils.org.uk/wp-content/uploads/2021/11/Short_BSSS_Science-Note_FOR-DIGITAL.pdf

Paragraph 180 of the NPPF requires planning decisions to provide net gains for biodiversity and this will be a legal requirement from February 2024. In accordance with the Environment Act became developments will be required to provide at least 10% Biodiversity Net Gain (BNG).

The application has been accompanied by an Ecological Impact Assessment (EclA) which has been informed by wintering and breeding bird surveys and assessments of trees for bat roost potential. EDNA Testing for Great Crested Newts was not undertaken as previous tests identified GCN within 250m of the Site. Should planning permission be granted, the applicant will apply for a District License.

The EclA has identified mitigation measures, such as the requirement for a Construction Ecological Management Plan and bat and bird boxes which can be secured by condition.

An area measuring 5.44ha will provide mitigation for ground nesting birds. This will also incorporate mitigation for both the additional areas of panels and for approved Blythe solar farm. The long-term management of this area and the wider site will be secured by a Landscape and Ecological Management Plan (LEMP).

The proposed development the proposals would result in a net gain of 62.33 habitat units (90.73%), a net gain of 2.06 hedgerow units (10.28%), and a net zero gain/loss in river units.

The application is also accompanied by an Arboricultural Impact Assessment. The proposed development seeks to retain existing trees (except for those that are diseased/decaying) and they will be protected during construction, the details of which will be set out within Tree Protection Plan which can be secured by condition.

The application is considered to accord with the environmental objectives of the NPPF, policies SD1 and C3 of the adopted local plan.

5.5 Economic benefit

The NPPF, at paragraph 85, states that *"Planning policies and decisions should help create the conditions in which businesses can invest, expand and adapt"*.

The proposed solar farm would provide economic benefits during the construction period, directly through employment where possible, and indirectly through the use of local supply chains and services.

Once operational, the development will not require on site employees but will result in additional employment through long term maintenance and management of the site.

The proposed solar farm would have a maximum export capacity of approximately 17.6MWp which would provide enough electricity to power around 4,653 homes a year, equivalent to 10.5% of homes in the district⁸. This is the same as boiling 171,201,254 kettles or charging 428,003 Nissan Leaf electric cars⁹.

The proposed solar farm will save approximately 3,274 tonnes of carbon dioxide per year¹⁰.

⁸ Household data from BEIS - Using Mean Electricity Usage figures by Local Authority <http://www.gov.uk/government/collections/sub-national-electricity-consumption-data/>

⁹ Nissan Leaf Standard model with a 40kW battery: <https://ev-database.uk/car/1106/Nissan-Leaf>

¹⁰ Greenhouse gas reporting: conversion factors 2021: <https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2021>

As with the Approved Blythe solar farm project, the applicant is committed to providing Community Benefit Funds (CBF). This is outside of the remit of the planning process but indicates the applicant's commitment to providing tangible benefits for the local community.

At a higher level, the proposed solar farm will contribute towards savings that will, in time, be realised by the consumer. Currently, the largest part of a householder's energy bill is the cost of buying energy which has traditionally been determined by the underlying price of gas or coal. Solar farms are recognised as being one of the cheapest forms of electricity generation¹¹ and as the UK and other countries move towards decarbonising their energy supplies, it is expected that wholesale energy prices may reduce as the reliance upon gas and coal reduces. In turn, this saving will be passed on to the consumer.

The proposed extension to the approved Blythe Solar Farm will meet the economic objectives of sustainability.

5.6 Heritage -Designated Heritage Assets

Heritage Assets are sites and buildings of historical value which range from local to international significance. The NPPF sets out that *"These assets are an irreplaceable resource and should be conserved in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of existing and future generations"*. A *"designated"* heritage asset is a building or site that has been designated under legislation, e.g. a Listed Building or a Scheduled Monument.

Policy DC2 (Historic Environment) of the adopted Local Plan advises that in relation to heritage assets, the Council will seek to preserve and where possible enhance heritage assets including their setting. The policy sets out the requirement for the submission of a heritage statement. In accordance with Local Plan policy DC2, the application is accompanied by a Heritage Environment Desk-Based Assessment (HEDBA) prepared by Wessex Archaeology.

In addition to local and national planning policy guidance, under Sections 16 and 66 of the Planning (Listed Buildings and Conservation Areas) Act 1990, LPAs must have special regard to the desirability of preserving a listed building or its setting or any features of special architectural or historic interest which it possesses.

There are no designated heritage assets within the Site. Blythe House, approximately 75m to the north of the southern parcel is a Grade II listed building, dating from the 17th century, but rebuilt in the 18th century with 19th century additions.

There are two Scheduled Monuments outside of the Site associated with former moated settlements; 460m to the west of the southern parcel is the Paynsley Hall moated site, and 940m to the south of the southern parcel is Blithewood moated site. Within the Paynsley Hall moated site is a Grade II listed building (the hall). There are two listed structures further afield but within 1km of the Site: a listed Churchyard Cross in Cresswell at the north-west of the Site and a milepost at Totmonslow, to the north of the Site.

¹¹ Draft National Policy Statement for Renewable Energy Infrastructure (EN-3)

A historic water meadow, an undesignated heritage asset has also been identified within the southern parcel of the Site.

In respect of the impact of the proposed development upon historic landscape character, the Field boundaries would be preserved and maintained for the operational period of the development, and upon decommissioning, all equipment will be removed so any effect would be fully reversible.

The HEDBA has identified that the wider rural landscape contributes to the setting of Blythe House. It concludes that the proposed Blyth Solar Farm Extension, along with the previously approved Blythe Solar Farm, would result in an impact on the setting of Blythe House, and may result in a very minor change to the significance. The retention of hedgerow boundaries would ensure that the historic landscape character would still be discernible. The harm that would arise to the setting of the listed building and therefore its significance is considered to be “less than substantial harm”. The proposed layout also includes an additional belt of woodland screening to the south-west of Blythe House.

In respect of the Paynsley Hall Scheduled Monument, the Site is not considered to have had a historic connection to it. There is some limited intervisibility and the proposed development will be potentially visible and while there may be a minor change to its setting, it will not result in harm to its significance.

The NPPF at paragraph 208 states that *“Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal including, where appropriate, securing its optimum viable use”*

There are clear public benefits in respect of the delivery of much needed renewable energy and the carbon savings that will arise. Recent appeal decisions have indicated that such benefits should be assigned significant weight¹². Other public benefits include ecological and economic benefits. It is considered these public benefits will outweigh the less than substantial harm that may arise.

The proposed solar farm is considered to accord with the environmental objectives of the NPPF and Local Plan policy DC2.

5.7 Heritage -Archaeology

There are no designated archaeological features (i.e. Scheduled Monuments) within the Site.

The approved Blythe Solar Farm application was accompanied by a gradiometer (geophysical) survey and the extent of the survey covered the Site now proposed. It has been determined that the Site has limited archaeological interest and assessment work undertaken to date has not identified any archaeological resource that would be complex, rare and well preserved and would preclude the proposed solar farm extension.

The approved Blythe Solar Farm planning permission was conditioned as follows:

“Prior to the commencement of the development hereby permitted, a written scheme of archaeological investigation (‘the Scheme’) shall be submitted for the written approval of the Local Planning Authority. The Scheme shall provide details of the programme of archaeological works to be

¹² SoS called in decision APP/C3240/W/22/3293667

carried out within the site, including post-excavation reporting and appropriate publication and interpretation. The development shall thereafter be implemented fully in accordance with the approved Scheme.”

The applicant will accept the same condition should planning permission be granted for the proposed solar farm extension, thereby ensuring that in the event of any archaeological remains being discovered during the development, steps will be undertaken to ensure that such finds are recorded, and if required, additional mitigation is undertaken.

The application is considered to accord with the environmental objectives of the NPPF and policy D2 of the adopted local plan.

5.8 Highway safety

The proposed development will not generate high levels of vehicle movements. The greatest number of vehicle movements associated with the development will be during the construction period and therefore the application is accompanied by a Construction Traffic Management Plan (CTMP).

Construction works will take approximately 16 weeks and will occur at the same time as the construction of Blythe Solar Farm Extension, utilising the same construction compound. The CTMP has assessed the most suitable route for construction vehicles to the site.

The majority of construction vehicles would travel to the site via the A50. There is no direct access from the A50 into the site, and vehicles will travel northwards and join the A521 at the Tean Roundabout. From here, they will travel southwards along the A521 /Uttoxeter Road before turning right on to the farm access that currently serves Lower and Upper Newton Farms.

The proposed development would not compromise highway safety and it would have a negligible impact upon the local highway network.

5.9 Hydrology

National and local policy planning policies seek to minimise risks of flooding by directing development away from areas at high risk from flooding. Policy SD5 (Flood Risk) requires developments to incorporate Sustainable Drainage Systems (SuDS).

The entire northern parcel of the Site lies within Flood Zone 1, which is the zone identified by the Environment Agency as having the lowest risk of flooding. The majority of the southern parcel is also with Flood Zone 1 although the part of the access track and some small areas of low lying land are within Flood Zone 3 which is the zone with the highest risk of flooding. All of the proposed supporting infrastructure equipment, as shown on the proposed Site Layout Plan, is located within Flood Zone 1.

The application is accompanied by a Flood Risk Assessment (FRA) and a Surface Water Management Plan. The FRA has identified that due to the location of part of the Site within FZ3, the Exception Test must be passed.

There are two parts to the exception test; the first is that it can be demonstrated that the development will provide wider sustainability benefits to the community that outweigh the flood

risk, the second is that it can be demonstrated that the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere and where possible will reduce flood risk overall.

The wider sustainability benefits of the proposed development is the additional renewable energy generation that can be achieved, thereby contribution towards the goal of net carbon emissions by 2050. Other benefits will be realised through the delivery of 90.73 % BNG.

The FRA has dealt with the safety of the development. For the small area of the Site within Flood Zone 3, shallow flooding may occur but the depth of this would be well below 800m, which will be the minimum height of the panels about ground level.

The development will introduce only small areas of impermeable surfaces, mainly within the electrical infrastructure area and the bases on which the transformers will sit. Internal tracks will be permeable and solar panels do not prevent rainwater from infiltrating into the ground.

For three of the pairs of transformers, where infiltration will not be possible due to ground conditions and where there is no receiving watercourse nearby, attenuation is proposed with an outfall to a gravelled area. This is considered to be a pragmatic and practical design solution.

The FRA concludes that with these measures in place, the proposed development would be in accordance with the requirements of the NPPF. It would not increase the risk of flooding on or off the site.

5.10 Landscape and visual

The NPPF at paragraph 180 advises that planning decisions should contribute to and enhance the natural and local environment by “... *recognising the intrinsic character and beauty of the countryside*”. However, the NPPF does not seek to protect all of the countryside from development, and instead concentrates protection on “*valued landscapes*”.

Policy SS10 (Other Rural Areas Strategy) supports development which has an essential need to be located in the countryside. The policy seeks to enhance and conserve the quality of the countryside and specifically refers to renewable energy schemes, requiring them to be of an appropriate scale, type and location. Policy DC3 (Landscape and Settlement Setting) seeks to protect, and where possible, enhance the local landscape and the setting of settlements within the District. Policy SD2 (Renewable/Low-carbon energy) also makes specific reference to the impacts of a renewable energy development upon the landscape with specific reference to having had regard to landscape character.

Guidance in PPG notes the visual impact of a solar farm can be properly addressed within the landscape if planned sensitively and that there is the potential to mitigate landscape and visual impacts through, for example, screening with native hedges.

The Site does not lie within a designated landscape. The site is positioned on the north-western edge of the “Needwood and South Derbyshire Claylands” National Character Area¹³ and within the “Settled Plateau Farmland Slopes” character type as defined by the LPA’s Landscape and Character Assessment of the District¹⁴.

¹³ Natural England NCA Profile: 68. Needwood & South Derbyshire Claylands (NE390) (2013)

¹⁴ Landscape and Settlement Character Assessment of Staffordshire Moorlands (2008) Wardell Armstrong

The Site occupies agricultural land on a relatively gentle south-west facing slope within the wide shallow valley of the River Blithe, orientated on a north-west to south-east alignment. The majority of the fields are enclosed by continuous hedgerows of varying height and most follow an irregular pattern. There are taller hedgerows and hedgerow trees at the north-eastern side of the Site.

The fields within the northern parcel, and the field to the west of the southern parcel are relatively small and enclosed by tall hedgerows. The remaining two fields within the Southern parcel are larger and more open in character, but with tall hedgerows to the east and west.

A Landscape and Visual Impact Assessment (LVIA) accompanies the application. This has assessed the impact of the proposed development upon both the character and the appearance of the landscape from several public viewpoints within the vicinity. The LVIA has also considered the cumulative impacts of other solar farm developments, approved and pending, in close proximity to the Site and these will be discussed in more detail in the section below.

Mitigation will be provided through the planting of new native woodland planting to the south of the Site and to the south-west of Blythe Farm House. New hedgerows will be planted adjacent to PRoWs and existing hedgerows will be enhanced. This mitigation will not only provide screening but biodiversity enhancements too and over a period of time, this planting will assist in reducing visual impacts in the wider landscape.

The limited harm to the character and appearance of the landscape must be balanced against the availability of a point of connection and the public benefits that will result from the proposed development.

The applicant has secured a connection to the Grid and the proposed development seeks to fully utilise the capacity available to the applicant at this location, which is critical when there are known delays with Grid connections (as discussed in section 5.2.2) Furthermore, an overhead connection will be more efficient in terms of cost and potential energy loss. The availability of additional land adjacent to the approved Blythe Solar Farm has enabled the applicant to propose the alternative location for the substation, within close proximity to the point of connection and consolidate additional areas of solar panels rather than seek separate parcels of land which would further disperse development in the locality.

The public benefits of the proposed solar farm extension include the delivery of BNG and economic benefits, but the public benefit that carries the most weight is the delivery of renewable energy which is urgently needed to meet decarbonisation/net zero targets. National and local plan policies and strategies all set out the imperative need to tackle climate change, and the delivery of renewable energy projects, such as the proposed solar farm extension, carry very significant benefits, which can outweigh limited harm to the landscape. This can be seen in numerous appeal decisions, including those in which the landscape has been more sensitive than the proposed Site. One example is an appeal decision called in by the Secretary of State (SoS) for a 30MW solar farm in Shropshire¹⁵. In March 2023, the SoS overturned the Planning Inspectors decision and allowed the appeal. The appeal site was considered to be within landscape, “*clearly valued by local residents*”, designated as a Strategic Landscape within a local plan and contributed to the setting of an Area of Outstanding Natural Beauty. Despite the harm to the landscape character and appearance of the area which was afforded significant weight, the SoS considered that the production of electricity

¹⁵ APP/C3240/W/22/3293667 Land West of New Works Land, Telford

carried significant weight as did additional planting and community benefits and the appeal was allowed.

The public benefits of the proposed development are considered to outweigh the limited harm to the character and appearance of the landscape, which would be temporary and reversible. It is considered that the proposed development accords with the environmental objectives of the NPPF, policies SS10, DC3 and SD2.

5.11 Cumulative impacts

The availability of capacity within the Grid in the Upper Tean area has resulted in this area attracting renewable energy projects. In addition to the previously approved Blythe solar farm development, there is an approval for a 15MW solar farm to the north of the A50 at Totmonslow (ref SMD/2023/0197) and a pending application for a 49.9MW solar farm at Lower Tean Leys/Upper Leigh (SMD/2023/0059).

When considering cumulative impact, the primary consideration relates to the cumulative impact upon the character and appearance of the landscape. The Planning Practice Guidance at paragraph 23 refers to the cumulative impact of wind turbines, this is relevant as at paragraph 13, the PPG advises that *“The approach to assessing cumulative landscape and visual impact of large scale solar farms is likely to be the same as assessing the impact of wind turbines. However, in the case of ground-mounted solar panels it should be noted that with effective screening and appropriate land topography the area of a zone of visual influence could be zero.”*

The LVIA has assessed the potential for cumulative landscape and visual effects associated with the proposed solar farm at the Site and those consented and proposed within close proximity of the Site.

From within the site, the LVIA has concluded that with the exception of the adjoining approved Blythe Solar Farm, it is unlikely that there will be any perceived cumulative landscape and visual effects as there is little or no intervisibility with the other sites at Lower Newton and Totmonslow Farm. Likewise, the proposed solar development extension at Upper Leigh will not be visible from within the Site.

Within the wider landscape, there will be views of the existing, approved and proposed solar farms. However, as proposed landscape planting within the approved Blythe solar farm site and the extension site matures, the overall cumulative adverse landscape and visual effects will reduce from “moderate” to “major” significance to “moderate” adverse in respect of landscape character and “minor” to “moderate” with regard to the majority of the visual receptors identified within the LVIA.

The Totmonslow Solar Farm, once constructed, will be approximately 60m to the north of the Site and approved Blythe Solar Farm. The physical separation by the A50 and substantial existing vegetation of the two sites limit the cumulative impact; it will be partially visible in long range views from the south-western side of the valley and will not result in adverse impact of major significance.

If the Upper Leigh Solar Farm is approved, due to its scale and proximity, the cumulative impact would be greater. This could render the cumulative landscape character impact of solar development across a large part of the valley as ‘major’ and adverse and would have a more ‘major’ impact upon a number of visual receptors, particularly the network of public footpaths on the south side of the valley. However, in the medium to long-term however, the planting and landscape mitigation proposals associated with all of the consented and proposed developments will provide

some beneficial landscape impact, thus potentially rendering the medium to long-term landscape character effects as 'moderate'.

The approved and proposed solar developments in the area would not result in the loss of key landscape features such as hedgerows and trees, and the prevailing field pattern, as these will be retained. These also include appropriate landscape, visual and ecological mitigation and enhancement to be secured through the planning process, e.g. via a Landscape and Ecological Management Plan. Furthermore, when considering the cumulative impact, the temporary nature of the approved and proposed solar farms should be considered. It is anticipated that all of the infrastructure will be completely removed after a period of 40 years from the completion of development. This will result in no adverse landscape and visual effects after this period.

The cumulative impacts of the development can also be considered in respect of the impact upon the local highway network. Due to the relationship of the proposed site and approved Blythe Solar Farm, they would be constructed at the same time utilising the same access and construction compound. Previously agreed traffic management measures would also apply to the proposed Site, along with environmental controls.

There is the potential for the Totmonslow Solar farm to be constructed at a similar time to THE approved Blythe Solar Farm and the proposed extension. However the construction of that development will be subject to similar controls to minimise adverse effects on road users.

The cumulative impacts of the extension and approved Blythe Solar Farm in respect of glint and glare and noise have been assessed by the relevant technical reports and found to be acceptable.

The potential cumulative impacts of the proposed development are not considered to be significant and must be weighed against the public benefits as discussed within this planning statement.

5.12 Pollution

The NPPF, at paragraph 180, states that developments should not contribute to unacceptable levels of all types of pollution. Noise pollution is specifically referred to within paragraph 191; noise should be mitigated for and reduced to a minimum and should not give rise to *"...significant adverse impacts on the health and quality of life"*. Light pollution is also referred to within the same paragraph of the NPPF and again the impact upon local amenity, intrinsically dark landscapes and nature conservation should be limited.

At a local level, policy SD2 (Renewable/Low Carbon Energy) requires a planning application to demonstrate how any environmental impacts, which includes noise, will be minimised and Policy SD4 (Pollution and Water Quality) refers to all types of potential sources of pollution that may arise from a development which again includes, noise, along with water and light pollution.

A Noise Impact Assessment accompanies the application, and as discussed in section 5.11, this has considered the cumulative impact of both the proposed extension and approved Blythe solar farm. With mitigation of the central invertors, the proposed development, and the cumulative impacts, are considered to be acceptable.

The proposed solar farm extension can be operated without the need for external lighting. The security cameras which will monitor the site will be infra-red and will operate at night-time without the need for any additional source of light. There will be a motion-sensor downward LED light on the external elevation of the DNO substation. This is a requirement of the DNO for safety reasons. The

small size of this light and the downward projection will ensure that there will be no harmful light pollution.

There will be no industrial processes occurring within the solar farm that could result in pollution of watercourses.

The application therefore accords with the environmental objectives of the NPPF and Local Plan policies SD2 and SD4.

5.13 Glint and Glare

The PPG advises that when considering large scale solar farms, particular factors that an LPA will need to consider include the proposal's visual impact...*"the effect on landscape of glint and glare and on neighbouring uses and aircraft safety"* (Paragraph: 013 Reference ID: 5-013-20150327). As discussed at section 5.12. policy SD2 (Renewable/Low Carbon Energy) of the Local Plan refers to the environmental impacts of a renewable energy development and the impact of such developments on the amenity of residents.

Solar panels are designed to absorb sunlight, if they were highly reflective, they would be inefficient and would make a solar farm unviable. However, as they have a flat, polished surface, they will have a degree of reflectivity, commonly referred to as "glint and glare". "Glint" is considered to be a flash of light, i.e. a direct reflection of the sun whilst "Glare" is considered to be a continuous source of bright light i.e. a reflection of the bright sky.

A Glint and Glare Assessment accompanies this application this has taken into account the cumulative impact of approved Blythe Solar Farm and the proposed extension areas. The assessment has considered the impact upon residential dwellings within 1km of the site, upon drivers on the nearby roads (the A50 and Cresswell Old Road) and the railway line. There were no aerodromes/airfields identified that required a detailed assessment of glint and glare. With mitigation, including the maintenance of hedgerows to a height of 3.5m which can be set out within the LEMP. There will be no adverse impacts of the proposed development.

The proposed solar farm would not result in glint and glare that would have a negative impact upon residential amenity nor would it result a nuisance or a danger to highway or railway safety.

5.14 Sustainability

Sustainable development is described as *"... development that meets the needs of the present, without compromising the ability of future generations to meet their own needs."*¹⁶

A solar farm is inherently sustainable as it will provide a renewable source of energy, reducing the reliance upon fossil fuels. This statement has previously addressed how the development will not result in a permanent loss of BMVL for future generations and this also applies to mineral resources.

The Minerals Local Plan for Staffordshire (2015-2030) was adopted by Staffordshire County Council in 2017. An interactive map is not available on the website of Staffordshire County Council, however it appears that part of the site could lie within the Minerals Safeguarding area as defined by Policy 3 of the Minerals Local Plan. The purpose of the policy is to prevent the unnecessary sterilisation of

¹⁶ Our Common Future, UN World Commission on Environment and Development 1987

known deposits of minerals by non-mineral development. However, the policy does not constitute an allocation and the suitability and practicality of extracting the resource at this site has not been assessed. Although the quantity, quality or value of the mineral resource is currently not known, the key consideration is that the solar farm is not a permanent development. It will operate for a maximum of 40 years with no disturbance to the mineral resource. When the solar farm ceases to operate, all of the panels, batteries and supporting infrastructure will be removed from site and the mineral resource can be extracted, if it is determined that the resource is suitable for extraction.

The re-use and recycling of materials is also a consideration of the sustainability of a development. During the construction process, there is expected to be minimal waste and any that does arise, will be taken off site and recycled where possible.

The solar farm has a modular construction which means that should one element fail, such as an individual PV panel it can be replaced, maintaining the overall performance of the development. On-going management and maintenance will ensure that the development continues to run as efficiently as possible for its operational period.

The decommissioning of the Site will be undertaken in accordance with the environmental legislation and technology available at that time. The scheme of decommissioning can be agreed with the LPA and secured by condition.

A very high proportion of materials in solar panels are recyclable. A solar panel is made of a frame (aluminium), glass, crystalline silicon solar cells and copper wiring. All of which can be extracted, separated and recycled or reduced. Companies like PV Cycle and the European Recycling Platform help developers at this stage. The glass and metal will be reused and the majority of the silicon in the panels will be reused. It is expected that recycling or reconditioning processes will become more widespread and efficient during the operational period of the solar farm.

6 Summary and conclusion

At both national and local levels, the harmful implications of climate change are recognised, and laws and actions have and are being made to tackle the climate emergency. There is an increasingly urgent need for renewable energy to contribute to the decarbonisation of the country's electricity system and to meet the UK's Net Zero targets, a considerable growth in large scale solar farms will be needed which cannot solely be achieved on brownfield land or roof top installations.¹⁷

It has been demonstrated through technical assessments and surveys that the areas of additional panels and the relocation of the electrical infrastructure compound would not result in harm to biodiversity or public safety, nor would it increase the risk of flooding on or off the site. Additional woodland, hedgerow and scrub planting would provide biodiversity enhancements and would provide screening of the solar farm. A significant increase in Biodiversity Net Gain would be delivered by the proposed development.

The proposed development is considered to accord with the relevant national and local plan policies and should therefore be approved without delay.

¹⁷ Para 34: Appeal APP/G2713/W/23/3315877 Hambleton, Yorkshire



Planning

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