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05 June 2025

Environmental Statement

Chapter 1: Introduction

Stokes Lane Solar Farm

Stokes Lane Solar Farm Limited

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Document Prepared For

Harry Whittaker
Stokes Lane Solar Farm Limited
22 Grosvenor Gardens,
London,
SW1W 0DG

Document Prepared By

Freena Gracia
Assistant Project Manager
freena.garcia@atmosconsulting.com

Document Approved By

Anna Bloor
Principal Consultant
anna.bloor@atmosconsulting.com

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Glossary of Terms

Term	Definition
The Applicant	Stokes Lane Solar Farm Limited
The Agent	Atmos Consulting Limited
Environmental Advisors and Planning Consultants	Atmos Consulting Limited
Environmental Impact Assessment	Environmental Impact Assessment (EIA) is a means of carrying out, in a systematic way, an assessment of the likely significant environmental effects from a development.
The EIA Regulations	The Town and Country Planning (Environmental Impact Assessment) Regulations 2017
Environmental Statement	A document reporting the findings of the EIA and produced in accordance with the EIA Regulations.
The Proposed Development	Stokes Lane Solar Farm
The Proposed Development Site	The full application boundary

List of Abbreviations

Abbreviation	Description
AC	Alternating Current
AIA	Arboricultural Impact Assessment
ALC	Agricultural Land Classification
AOD	above ordnance datum
AONB	Area Of Outstanding Natural Beauty
BDBC	Basingstoke and Deane Borough Council
CA	Conservation Area
CEMP	Construction Environmental Management Plan
CIfA	Chartered Institute for Archaeologists
CTMP	Construction Traffic Management Plan
DC	Direct Current
DNO	Distribution Network Operator
EIA	Environmental Impact Assessment
ES	Environmental Statement
FRA	Flood Risk Assessment
HIA	Heritage Impact Assessment
HER	Historic Environment Record
IEMA	Institute Of Environmental Management And Assessment
LEMP	Landscape and Ecological Management Plan
LVIA	Landscape and Visual Impact Assessment
LNR	Local Nature Reserve
NGR	National Grid Reference
NHLE	National Heritage List for England
NL	National Landscape
NPPF	National Planning Policy Framework
NTS	Non-Technical Summary
PV	Photovoltaic
POC	Point Of Connection
PRoW	Public Rights Of Way
RPG	Registered Park and Garden

SPD	Supporting Planning Document
SSSI	Sites of Special Scientific Interest
TS	Transport Statement

1. Introduction

1.1 Background

Stokes Lane Solar Farm Limited ('the Applicant') is seeking planning permission under the Town and Country Planning Act 1997 (the 'Planning Act') for the construction and operation of an electricity generating station known as Stokes Lane Solar Farm (the 'Proposed Development').

This Environmental Statement (ES) has been prepared in accordance with The Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (the 'Environmental Impact Assessment (EIA) Regulations').

The site of the Proposed Development (the 'Proposed Development Site') is located on land north and south of Rookery Farm Lane, south of the village of Monk Sherborne, North of Basingstoke. It is centred at National Grid Reference (NGR) 460512,155345 and covers a total area of c. 87.5 hectares (ha). The Proposed Development Site lies wholly within the planning authority area of Basingstoke and Deane Borough Council (BDBC). The location of the Proposed Development Site is shown on **Figure 1-1: Site Location Plan** in **Volume 4** of this ES.

The Proposed Development would comprise of the installation and operation of ground-mounted solar photovoltaic (PV) panels fixed to a dual-axis solar tracking system, and associated infrastructure including access roads, substation, cabling, power stations, control room; a Distribution Network Operator (DNO) station; storage containers; security fencing and CCTV; and temporary construction compound.

The Proposed Development would have a generating capacity of up to 28 megawatts (MW) and includes the grid connection cable route beyond the main solar farm site. The Proposed Development is shown on **Figure 1-2: Site Layout Plan** in **Volume 4** of this ES.

1.2 The Applicant

The Applicant is a renewable energy development company committed to investing in the BDBC area through renewable energy projects and making a positive contribution to national and international renewable energy, and carbon emission reduction targets with local community benefits and additional outcomes that renewable energy development can bring.

1.3 Purpose of the Environmental Statement

This ES presents the findings of the EIA process by describing the Proposed Development, the current conditions at the Proposed Development Site and the likely significant environmental effects that may result from the construction, operation and decommissioning of the Proposed Development.

The Proposed Development was screened as 'EIA Development' by BDBC in January 2021 (ref: 21/03566/ENSC). In February 2023 a Scoping Opinion request was submitted for which the Scoping Opinion was received in June 2023 (ref: 23/00411/ENS), and the following environmental issues were requested to be 'scoped in' to the EIA:

- Landscape and Visual; and
- Cultural Heritage.

Where appropriate, additional mitigation measures designed to avoid, reduce or offset likely significant effects are proposed and residual effects (those effects that are expected to remain following implementation of mitigation measures) are presented.

As required by the EIA Regulations, the findings and conclusions of the EIA are summarised in a standalone, easily accessible, Non-Technical Summary (NTS). This enables anyone with an interest in the Proposed Development to understand and access information on its likely significant environmental effects. The NTS is found in **Volume 1** of this ES.

1.4 Structure of the Environmental Statement

The ES is structured as follows:

- Volume 1: Non-Technical Summary;
- Volume 2: Environmental Statement;
- Volume 3: Technical Appendices; and
- Volume 4: Figures.

Volume 2 (this Volume) is structured with the following chapter headings:

- Chapter 1: Introduction;
- Chapter 2: Landscape and Visual Impact Assessment;
- Chapter 3: Cultural Heritage; and
- Chapter 4: Schedule of Mitigation and Summary of Residual Effects.

1.5 The Environmental Impact Assessment Team

The EIA has been undertaken by Atmos Consulting with assistance from specialist consultants listed in **Table 1-1**. All are suitably qualified and competent experts in their field, as is required under the EIA Regulations.

Table 1-1: Environmental Impact Assessment Team

EIA Subject	Company	Statement of Competency
EIA Coordination and Management; Introduction; Summary	Atmos Consulting	Atmos has a proven track record in the solar energy sector built up over 15 years of experience working in the industry and leading EIA projects. The Atmos team are appropriately qualified, and technical assessments are overseen by experts with at least ten years' experience in their field.
Landscape and Visual	Andrew Jones	Andrew Jones is a Chartered Landscape Architect with over 20 years of professional experience in undertaking LVIAs with particular focus on renewable energy development.
Cultural Heritage	AOC Archaeology	AOC is a registered organisation of the Chartered Institute for Archaeologists (CIfA) and is ISO 9001:2015 accredited. The staff are qualified professional archaeologists and members of the CIfA with extensive experience of the preparation of Cultural Heritage and Archaeology impact assessments for large scale solar farm developments.

1.6 Supporting Documents

In addition to the ES, the application for the Proposed Development is accompanied by a number of supporting documents that should be read in conjunction with this ES. These include standalone environmental assessments reports that were agreed to be 'scoped out' of the EIA by BDBC.

The accompanying documents comprise the following:

- Planning, Design and Access Statement;
- Statement of Community Involvement;
- Preliminary Ecological Appraisal Report;
- Biodiversity Net Gain Assessment Report;

- Transport Statement;
- Glint and Glare Assessment;
- Agricultural Land Classification Report;
- Surface Water Drainage Impact Assessment;
- Noise Impact Assessment; and
- Flood Risk Assessment.

1.7 Land-use and Proposed Development Site Context

1.7.1 The Proposed Development Site

The Proposed Development Site comprises lower lying sections of up to five large arable fields, dispersed into two parcels, located to the north and south of Rookery Farm Lane, south of the village of Monk Sherborne, North of Basingstoke. Rookery Farm Lane which runs approximately southwest to northeast connects to the A339 to the south. The fields are joined by common access tracks, and consist of a series of interlinked agricultural fields, enclosed by typical field boundary hedgerows which contain occasional trees.

In general, the Proposed Development Site parcels lie on sloping, north to northeast facing land to the north of the A339 between Weybrook Park golf course and the villages of Sherborne St John and Monk Sherborne. It is c. 0.7km northwest of the built-up fringes of Basingstoke.

The Proposed Development Site context embraces an area of open, large-scale, gently undulating, arable farmland to the northwest of Basingstoke. It is slightly elevated between c. 125m above ordnance datum (AOD) and c. 95m AOD, with varying degrees of intervisibility but with a general fall of terrain and focus to the north and east to face Basingstoke, from the higher points to the south.

The Proposed Development Site is predominantly used for agricultural purposes with an Agricultural Land Classification (ALC) of 3a (good quality agricultural land) for the majority (>90%) of the four parcels of land to the east of the Proposed Development Site. An elongated area of land running approximately southwest to north east is Grade 2 land (very good quality agricultural land). The most north-westerly parcel of land, to the north of Rookery Farm Lane, is classified as 76% Grade 2 land, 23% as Grade 3b land and 1% as non-agricultural woodland.

1.8 Surrounding Area

Areas surrounding the Proposed Development Site to the south embrace expansive, large scale open, arable farmland and major road corridors, while to the north it embraces a lower lying, heavily wooded, settled landscape. At other points to the east, it includes a variety of contrasting land uses including for leisure in the form of recent golf course development, woodland, settlement expansion and the urban edges of Basingstoke. The Proposed Development Site is located immediately adjacent to the Monk Sherborne Conservation Area (CA), and close to the Sherborne St John CA.

The context of the surrounding area around the Proposed Development Site is shown on **Figure 1.3: Site Context Plan**.

1.8.1 Landscape Designations and Visual Receptors

The Proposed Development Site is not covered by any national or local landscape designations.

The North Wessex Downs Area of Outstanding Natural Beauty (AONB), now National Landscape (NL), is located c. 280m southwest of the Proposed Development Site. The designation is separated from the Proposed Development Site by the A339.

A number of public rights of way (PRoW) run adjacent to the eastern and western Proposed Development Site boundaries and between the eastern parcels at Stokes Lane including the long-distance route the St James Way along the eastern Proposed Development Site boundary.

These PRoW then continue to connect with a wider network of PRoW, connecting the two nearest settlements of Monk Sherborne and Sherborne St John to further recreational routes and long-distance paths to the south. However, to the south side of the Proposed Development Site some PRoW stop and are severed by the road network and the A339, limiting wider connections in the direction.

1.8.2 Heritage Designations

There is one designated heritage asset within the Proposed Development Site, the grid connection route terminates within the western boundary of the Vyne Grade II Registered Park and Garden (RPG). There are no World Heritage Sites or Registered Battlefields within 2km of the Proposed Development Site.

The National Heritage List for England (NHLE) and the Historic Environment Records (HER) have identified the following designated assets within 2km of the Proposed Development Site:

- Three Scheduled Monuments;
- Two Grade I Listed Buildings, two Grade II* Listed Building and 47 Grade II Listed Buildings;
- Six locally Listed Buildings; and
- Three Conservation Areas.

1.8.3 Ecology Designations

There are five statutory designated sites identified within 5km of the Proposed Development Site. These are:

- Pamber Forest and Silchester Common Site of Special Scientific Interest (SSSI) and Local Nature Reserve (LNR);
- Ron Ward's Meadow with Tadley Pastures SSSI;
- Popley Ponds LNR;
- Cineham Woods (incl. Great Sorrells, Tollhouse, Guinea and Long Copses) LNR; and
- Daneshill Park Woods LNR.

1.9 Site Selection and Design Evolution

As per Schedule 4 (2) of the EIA Regulation (UK Government, 2017), the ES should include:

> *"A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the developer, which are relevant to the proposed project and its specific characteristics, and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects."*

The site selection and design process of the Proposed Development has been iterative and informed by various technical assessments.

1.9.1 Do Nothing Scenario

In the absence of the Proposed Development, it is anticipated that the current land uses would continue as they currently are.

Whilst this would mean there would be no adverse environmental impacts due to the Proposed Development, the 'do nothing' scenario would also mean that there would be no benefits derived from the Proposed Development and there will be no contribution to national and international net-zero targets.

1.9.2 Site Selection

Careful site selection has been undertaken in order to ensure that an efficient, technically and economically viable solar farm can be developed without causing significant adverse environmental impacts. The site selection process consisted of an evaluation of the following:

- Electricity Grid connection feasibility including identification of areas with available grid capacity, potential sites with proximity to overhead line (33kV) and with an identified potential point of connection;
- Site suitability including identification of sites of a suitable size, orientation and topography with suitable insolation levels. The site must also be accessible for construction and operational purposes;
- Site availability, i.e., landowners willing to offer land for solar development;
- Identification of potential planning issues including National and Local level designations (landscape, ecology, heritage); and
- Identification of potential environmental constraints including the presence of Heritage assets, flood risk, visual receptors.

The Proposed Development Site has been selected primarily due to the availability of suitable land in close proximity to the proposed grid connection point. Land further south and west falls within North Wessex Downs NL, which is considered unsuitable for development of this nature. To the west of the Proposed Development Site, the only viable land for solar unavailable due to an existing commercial agreement. To the north, efforts to secure a cable route were unsuccessful, as the landowner declined to engage and requested that no further contact be made.

Taken together, these constraints make the chosen site the most appropriate and deliverable location for the Proposed Development and was taken forward in the design evolution process.

1.9.3 Design Process

The design principles of the Proposed Development carry forward the principles applied to site selection through establishing a design that maximises the output of the solar farm, whilst minimising the impact on the environment. Wherever possible enhancement measures (particularly habitat and biodiversity measures) have been incorporated into the scheme with the design adapted to maximise the benefits.

These factors include establishing buffers between the infrastructure and potential wildlife habitats (such as hedges). A Preliminary Ecological Assessment (refer to '58754 R1 Stokes Lane Solar Farm – Preliminary Ecological Assessment') has been undertaken to identify the habitats present and potential species present.

A Landscape and Visual Impact Assessment (LVIA) (**Chapter 2: Landscape and Visual Impact Assessment** of this ES) has been undertaken to assess the likely effects on landscape character and visual receptors arising from the Proposed Development.

A Heritage and Archaeological Impact Assessment (HIA) (**Chapter 3: Cultural Heritage** of this ES) has been undertaken in order to assess the Proposed Development in relation to designated and non-designated cultural heritage assets.

A Geophysical Survey Report (refer to **Technical Appendix 3-3: Geophysical Report** in **Volume 3** of this ES) was undertaken in 2023 to gather sufficient information to establish the presence / absence of potentially significant archaeological anomalies and the character and extent of those anomalies within the survey area.

A Flood Risk Assessment (FRA) (refer to '58759 R3 Stokes Lane Solar Farm – Flood Risk Assessment') and Surface Water Drainage Impact Assessment (refer to '58759 R4 Stokes Lane Solar Farm – Drainage Assessment') has been carried out to ensure that the Proposed Development does not result in an increase in flood risk.

A Transport Statement (TS) and Framework Construction Traffic Management Plan (CTMP) (refer to '58759 R6 Stokes Lane Solar Farm - Transport Statement') has been compiled which takes into consideration the potential construction and operational effects of the Proposed Development in relation to traffic and access.

A Glint and Glare Appraisal (refer to '58759 R5 Stokes Lane Solar Farm – Glint and Glare Study') assessing the potential effects from the Proposed Development on road safety, residential amenity and aviation activity has been undertaken. This determined that the potential effects of the design can be operationally accommodated without alteration or mitigation.

An Arboricultural Impact Assessment (AIA) (refer to '58759 R8 Stokes Lane Solar Farm – Arboricultural Impact Assessment') was undertaken to evaluate the Proposed Development in relation to existing trees onsite.

A Noise Impact Assessment (refer to '58759 R9 Stokes Lane Solar Farm – Noise Impact Assessment') was undertaken in support of the planning application to establish the noise impacts on the surrounding area from the Proposed Development.

Consultation which has been undertaken with the local community has yielded feedback which has been considered as part of the design. This is presented within the Statement of Community Involvement (refer to 'Stokes Lane Solar Farm Statement of Community Involvement'), which provides more information with regards to how the design has taken into account the public's feedback.

1.9.4 Design Evolution

As a result of the survey work, consultation and the need to maximise the output of the solar farm; the design has evolved since its first iteration to take into account the results of the assessments and feedback from consultation.

In response to feedback provided and following initial meetings and contact with the Parish Councils, the design of the Proposed Development was amended as follows:

- Feedback regarding landscape and visual impacts led to the movements of proposed solar PV panels away from Rookery Farm Road;
- The land adjacent to the A339 (Kingsclere Road) was originally considered but then removed on the grounds of its proximity to the North Wessex NL;

- The most northerly part of the north eastern field was removed due to proximity to All Saints Church; and
- The Proposed Development originally extended to the Queens Cottages, but after feedback from Monk Sherborne Parish Council, a 100m buffer between the Proposed Development Site and the cottages, plus additional proposed screening, has been incorporated into the design.

Further measures have been incorporated into the design of the Proposed Development to reduce potential impacts and improve the layout of the Proposed Development, comprising (field numbering is presented on **Figure 1-2: Site Layout Plan** in Volume 4 of this ES):

- Removal of panels from higher central Proposed Development Site areas and field sections along both sides of Stokes Lane, which are more visible from the surrounding landscape. At these points panels are set back from the road on both the east and west sides by c. 60m at the narrowest point to the south adjacent to field 1 and up to c.150m to the north adjacent to field 2;
- These set back areas would be retained as farmland with new environmental enhancement buffers to the development edges and adjacent to sensitive receptors such as residents along Stokes Lane. This would also include a new permissive footpath to link and provide better connections within the PRoW network;
- Removal of panels from the northern field sections to the north of field 5 to reduce visibility from adjacent points to the north and west, including the edges of settlement, PRoW and the edges of the Monk Sherborne CA;
- Management of existing field boundaries which are intermittent scrubby and overmature, with new understory and infill planting to gap up and maximize screening potential of these boundaries;
- Screening elements of the Proposed Development from key receptor locations, e.g., users of the PRoW and residential properties adjacent to the Site boundaries;
- The Proposed Development layout was redesigned in order to avoid direct impacts upon potential archaeological finds or features; and
- Proposed solar panels have been set back from the road between Monk Sherborne and Wooton St Lawrence to limit impacts upon the setting and character of the landscape on approach to Monk Sherborne, which is designated as a CA.

Landscape mitigation proposals are incorporated into the Proposed Development design and are illustrated on the Landscape and Ecological Management Plan (LEMP) (as shown on **Figure 2.5: Landscape and Ecological Management Plan** in **Volume 4** of this ES).

1.10 The Proposed Development

The Proposed Development would comprise the installation and operation of a ground-mounted solar PV farm and associated infrastructure with a generating capacity of up to approximately 28MW. The layout of the Proposed Development is presented in **Figure 1.2: Site Layout Plan** in **Volume 4** of the ES.

The Proposed Development would comprise:

- A series of linear rows (also known as arrays) of PV solar modules;
- Four power stations;
- Internal access roads;
- Cabling;
- Customer and DNO substations;

- Spare parts containers;
- Security fencing and CCTV;
- A temporary construction compound; and
- Enhanced landscaping.

In a solar energy generation system, the solar module comprises multiple PV cells. The PV cells are composed of semiconducting materials and when daylight hits the module, a voltage develops between the semiconductor materials and a direct current is generated.

As the current generated by this process is Direct Current (DC) and the distribution system is designed for Alternating Current (AC), solar generation facilities require the use of inverters to convert DC to a useable AC.

The inverters convert the DC to AC immediately after generation. The AC is then fed through the transformer, where the voltage is stepped up and transmitted to the distribution network. The modules will be fixed to a dual-axis solar tracker system able to take advantage of the most optimum angle for solar panels for renewable energy generation.

The proposed solar farm will include principal components described below.

1.10.1 PV Solar Modules

The solar farm will use state-of-the-art polycrystalline PV modules. The modules ensure optimal use of solar irradiation and perform very efficiently at different angles to the sun. The PV modules will generate electricity with no air emissions, no waste production and no water use. The modules are fixed to a simple galvanised steel supporting frame with a -60 to 60 degree inclination during operation hours (refer to 'Stokes Lane Solar Farm Technical Drawing 1: Panel Elevations').

1.10.2 PV Arrays

Each array of modules is approximately 12m wide as shown in 'Stokes Lane Solar Farm Technical Drawing D.107 Solar Modules Arrangement Plan'. Typically, there are 30 modules per array.

In order to avoid shading by adjacent rows and to ensure optimum energy yield in the winter months the rows would be spaced approximately 2.1m apart, depending on local variations in topography. The rows would be aligned east to west and south facing. There would be a stand-off around the end of each array to allow for facility maintenance, access and ecological and landscape enhancements.

The supporting structure is pile driven vertically into the ground to a depth of approximately 1.5m. When the modules are fixed to the supporting frame, the modules will reach a maximum height of 3.1m above the ground level. The lowest point of the modules is approximately 1.0m above ground and designed to allow sheep to graze underneath the arrays.

1.10.3 Site Access

Primary access to the Proposed Development would be taken from two new priority junctions from Rookery Farm Lane.

Site access point 1 is an existing field access, to access the area of the Proposed Development Site west of Rookery farm Lane and is on the outside of a bend so visibility splays are maximised in each direction from the access point.

Site access point 2 is located on the east side of Rookery Farm Lane and would see the formation of a new access junction to serve the development.

Plans of the proposed access junctions and the associated visibility splays are contained within Appendix B of '58759 R6 Stokes Lane Solar Farm Transport Statement'.

A designated construction route has been identified for this development, which is via the A339 from the east, before a right turn on to Rookery Farm Lane where the Proposed Development Site would be accessed from. No construction traffic would arrive from the west of the A339. The construction route would be identified within the CTMP and measures would be put in place to prevent traffic from using other routes which are prohibited.

A Framework CTMP has been produced and presented within the TS (refer to '58759 R6 Stokes Lane Solar Farm Transport Statement') to demonstrate that adequate arrangements can be put in place to minimise and control the construction traffic impacts from the 12 month construction phase of the Proposed Development along with any associated environmental impacts.

1.10.4 Proposed Access Tracks

New internal access track is proposed and would be approximately 3.5m wide. The tracks would be designed to have sufficient radii for turning of the construction vehicles and plant. The access tracks have been designed to avoid sensitive features and are constructed, where possible, along the path of existing farm tracks and utilising existing gates.

The access track and internal tracks would be constructed using compacted graded crushed aggregate from the Proposed Development Site. At the end of the construction works a main track would be built through the interior of the plant mode of ballast to a minimum depth of 30cm (refer to 'Stokes Lane Solar Farm Technical Drawing 11: Road Cross Section'). No puddles or ponds should form at the sides of the track.

1.10.5 Power Stations

The solar farm requires four power station in total. An indicative power station and elevation is shown on 'Stokes Lane Solar Farm Technical Drawing 2: Power Station Elevation'.

The power stations comprise an intelligent inverter system and a small transformer. The power station is a power conversion device which changes the DC electricity generated by the PV modules into grid-compliant AC electricity and feeds this into the local electricity distribution network.

The transformer is an electrical device that alters the ratio of current and voltage in power to meet the requirements of transmission grids and devices. The power stations are 12.2m long, 2.4m wide and 2.9m high.

1.10.6 Customer Cabin

One customer cabin is required for the Proposed Development and to contain electrical safety switchgear, used to control, protect and isolate electrical equipment at the solar farm (refer to 'Stokes Lane Solar Farm Technical Drawing 4: Customer Station Elevation'). The customer cabin would be 12.72m long, 4.03m wide and 3.0m high. It will be coloured dark green to ensure it blends into the existing environment.

1.10.7 Spare Parts Container

There would be one container onsite to store spare parts (refer to 'Stokes Lane Solar Farm Technical Drawing 5: Spare Parts Container Elevation').

The container would be 13.7m long, 2.4m wide and 2.6m high.

1.10.8 Security Fence and Gates

For security and safety purposes the solar farm would be closed to the general public throughout the construction and operation phases via security fencing and a locked access gate.

A 2.6m high security fence would be installed around the perimeter of the solar farm (refer to 'Stokes Lane Solar Farm Technical Drawing 6: Fence and Gates Elevation'). The fence would be placed around the solar farm at the start of the construction programme and would remain for the duration of the operation of the Proposed Development.

A main steel gate would also be erected, approximately 2m high, and 6m wide.

The fence would be designed to allow small animals to pass through the solar farm and would be placed behind existing and proposed hedges to ensure it blends into the natural setting and existing environment.

1.10.9 Security Cameras and Lighting

CCTV cameras pointing into the solar farm would be installed within the fencing for security purposes (refer to 'Stokes Lane Solar Farm Technical Drawing 7: CCTV Elevation'). The CCTV cameras would be mounted on poles up to 2.4m high. There would be no external artificial lighting during operation of the Proposed Development.

1.10.10 Temporary Construction Compound

To ensure the efficient management of the construction phase, two temporary construction compounds would be set up for the duration of the estimated 12 month construction phase. An indicative temporary construction compound layout is provided in Stokes Lane Solar Farm Technical Drawing 11: Indicative Temporary Construction Compound'.

The two construction compounds would be located within the Proposed Development Site boundary to facilitate the construction of the Proposed Development. The compounds would provide sufficient space for:

- Site offices;
- Storage of site vehicles and materials;
- The safe loading and unloading of materials; and
- Staff vehicle parking.

The construction compound would require the laying of a temporary roadway and walkway system on the existing ground surface. The construction compound would be removed at the end of the construction period and the area restored to its original condition.

1.10.11 Electrical Layout and Grid Connection

The solar farm would connect into the SSEN distribution network via a new 33 kilovolt (kV) dual circuit. The dual circuit would be laid underground from a new 33kV metering substation at the solar farm site, to a point of connection (POC) at the existing SSEN overhead line, where it crosses Morgaston Road. The new 33kV cables would exit the ground at the base of two SSEN wood poles, connect to the poles and terminate onto the overhead lines.

The underground grid connection route would run from approximately NGR SU 61404 55834, north to Monk Sherborne Road. The grid connection route would then follow the road east, until it adjoins

the A340, heading north on Aldermaston Road. At Morgaston Road, the grid connection route terminates at the power pole at approximate NGR SU 61974 56940.

1.10.12 Development Phases

Construction

The construction of the Proposed Development is anticipated to take approximately 12 months. Construction would be controlled through a Construction Environmental Management Plan (CEMP), which would implement specific measures to ensure good practice and set out control measures and mitigation as required during construction.

Operation and Decommissioning

The operational period of the Proposed Development is anticipated to be 40 years. After which the panels and associated infrastructure would be decommissioned and removed, and the Proposed Development Site restored to its original condition.

At the end of the Proposed Development's lifespan, the predicted effects are reversible as the land would be returned to its former agricultural use, similar in form to its current state and land use. The timescales for the decommissioning and site restoration is anticipated to be six months.

1.11 Planning Context

This Section of this Chapter presents an overview of the legislation, planning policies and other guidance considered applicable to this EIA. The policies specific to the technical assessments have been considered in detail as part of the individual assessments undertaken in support of this application. Details are provided in **Chapters 2: Landscape and Visual Impact Assessment**, and **Chapter 3: Cultural Heritage** of this ES, as well as within the other supporting documents.

A detailed assessment of the Proposed Development against planning policy is contained within the Planning, Design and Access Statement, which is submitted separately with the application and is not replicated in this section.

1.11.1 National Planning Policy Framework

The National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government (MHCLG), 2025) was last updated on 7 February 2025, and replaces the last revision of the NPPF in December 2024 (originally published in March 2012).

The central theme of the NPPF is the presumption in favour of sustainable development, as detailed in Paragraph 11 which for Local Planning Authorities decision-taking means:

> *"…c) approving development proposals that accord with an up-to-date development plan without delay; or*
>
> *d) where there are no relevant development plan policies, or the policies which are most important for determining the application are out-of-date , granting permission unless:*
>
> > *i. The application of policies in this framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
> >
> > *ii. Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this framework taken as a whole, having particular regard to key policies for directing development to sustainable locations, making*

effective use of land, securing well-designed places and providing affordable homes, individually or in combination ."

Section 14 of the NPPF is of direct relevance to renewable energy generation. Paragraph 161 states that in order to increase the use of renewable and low carbon energy generation:

"The planning system should support the transition to net zero by 2050 and take full account of all climate impacts including overheating, water scarcity, storm and flood risks and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure."

Paragraph 168 states that when LPAs determine planning applications for renewable and low-carbon development, they should;

"not require applicants to demonstrate the overall need for renewable or low carbon energy, and give significant weight to the benefits associated with renewable and low carbon energy generation and the proposal's contribution to a net zero future."

Paragraph 169 states that:

"Once suitable areas for renewable and low carbon energy have been identified in plans, local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas."

Other sections of the NPPF are also relevant to the development of a solar farm in the countryside, these include:

Paragraph 88, which states that in supporting the rural economy, Planning policies and decisions should enable; *"the development and diversification of agricultural and other land-based rural businesses."*

Solar farm development can be seen as a form of farm diversification, to provide additional income to support agricultural production on the rest of the farm unit.

Paragraph 142, which acknowledges the UK Government:

"…attaches great importance to Green Belts. The fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open; the essential characteristics of Green Belts are their openness and their permanence."

Paragraph 153 sets out the criterion for determining inappropriate development as being; *"…by definition, harmful to the Green Belt and should not be approved except in very special circumstances."*

Paragraph 153 continues by stating when considering planning applications;

"…local planning authorities should ensure substantial weight is given to any harm to the Green Belt, including harm to its openness….'Very special circumstances' will not exist unless the potential harm to the Green Belt by reason of inappropriateness, and any other harm resulting from the proposal, is clearly outweighed by other considerations."

Paragraph 187 states that decisions should contribute to and enhance the natural and local environment by; *"…minimising impacts on and providing net gains for biodiversity…"* This is

demonstrated in the findings of the Ecological Assessment and the incorporation of biodiversity enhancement measures into the overall design.

The footnote to Paragraph 65 states that; "*Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality should be preferred to those of a higher quality.*"

1.11.2 Basingstoke and Deane Local Plan (2011 to 2029)

On 26 May 2016, BDBC adopted the Local Plan 2011–2029, which now forms a fundamental component of the statutory development plan for the borough. The Local Plan establishes the Council's strategic vision and spatial planning framework for the area up to 2029, guiding future growth, land use, and development decisions across the borough (BDBC, 2016).

This adopted Plan applies to the entire administrative area of Basingstoke and Deane and provides the policy basis for the assessment and determination of planning applications.

The following key policies in **Table 1-2** have informed the design of the Proposed Development on the assumption that these will be the policies against which the proposals will be reviewed:

Table 1-2: Basingstoke and Deane Local Plan (2011 to 2029) Policies

Policy	Details
Sustainable Development	
SD1: Presumption in favour of Sustainable Development	This policy sets out that BDBC will take a positive approach to development proposals, reflecting the presumption in favour of sustainable development in the NPPF. It will work proactively with applicants to find solutions and support development that improves economic, social, and environmental conditions. Applications that align with the Local Plan (and relevant neighbourhood plans) will be approved without delay unless material considerations suggest otherwise. Where policies are absent or out of date, permission will be granted unless: • The adverse impacts significantly and demonstrably outweigh the benefits; or • Specific policies in the Framework restrict development.
Community Development	
CN6: Infrastructure	This policy requires that new development to provide and contribute towards additional services, facilities and infrastructure at a rate, scale and pace to meet the needs arising from that development. Proposals will be permitted where it is clearly demonstrated that infrastructure can be provided and phased to support the development. Infrastructure should be provided onsite as an integral part of the scheme. Where offsite measures are necessary, they should meet identified needs, with the Community Infrastructure Levy as the primary mechanism for securing contributions. Infrastructure must be delivered prior to occupation or, for larger schemes, prior to occupation of the relevant phase. Site-specific mitigation will be secured through planning obligations.
Environment Management and Climate Change	
EM1: Landscape	This policy sets out that the development will be permitted only where it is demonstrated, through appropriate assessment, that proposals are sympathetic to the character and visual quality of the area. Proposals must respect, enhance, and not harm the landscape, with regard to: a) The particular qualities identified within the council's landscape character assessment and any subsequent updates or relevant guidance; b) Visual amenity and scenic quality; c) The setting of a settlement, including important views to, across, within and out of settlements; d) The local character of buildings and settlements, including important open areas; e) Trees, ancient woodland, hedgerows, water features such as rivers and other landscape features and their function as ecological networks; f) Intrinsically dark landscapes; g) Historic landscapes, parks and gardens and features; and h) The character of the borough's rivers and tributaries, including the River Loddon and Test.

Policy	Details
	Proposals must also preserve tranquillity and the enjoyment of PRoW, maintain settlement integrity, and avoid coalescence. Where appropriate, comprehensive landscaping schemes are required. Development in or near the North Wessex Downs AONB will be assessed in line with national policy and the AONB Management Plan.
EM4: Biodiversity, Geodiversity and Nature Conservation	This policy requires that Development will only be permitted if significant harm to biodiversity or geodiversity can be avoided, or if not possible, adequately mitigated. It must be clearly demonstrated that: – Key species' conservation status is not harmed; – European and nationally designated sites are not adversely affected; – Local sites (e.g. Sites of Importance for Nature Conservation or, LNRs) and irreplaceable habitats are protected; and – Ecological linkages remain intact. Where harm cannot be avoided or mitigated, development will only be permitted if there is an overriding public need with no less harmful alternative. Compensatory measures must ensure no net loss—and ideally a net gain—in biodiversity. Applications must include sufficient information to assess impacts on biodiversity and geodiversity. Relevant developments must include proportionate measures to enhance biodiversity, especially in Biodiversity Opportunity Areas and Priority Areas, using onsite or offsite habitat creation, restoration, or enhancement.
EM6: Water Quality	BDBC will work in partnership to protect, manage, and improve the water quality of the borough's water environment, especially water bodies failing to meet Water Framework Directive standards as outlined in River Basin Management Plans: • New development should incorporate sustainable drainage systems to support positive water quality management. • Water status is monitored through River Basin Management Plans and the Environment Agency, with results reported in the council's annual monitoring. • If monitoring indicates a likely deterioration in a water body's status, Policy SS4 will prevent further development in that catchment until intervention measures are implemented to improve quality. • Potentially contaminating developments on principal aquifers or within Source Protection Zones must demonstrate that groundwater and surface water are protected from deterioration and pollution. • Developments adjacent to watercourses must include measures to protect the watercourse, in line with the Green Infrastructure Strategy and River Basin Management Plans actions.
EM7: Managing Flood Risk	According to this policy, development within areas of flood risk from any source of flooding, will only be acceptable if it is clearly demonstrated that it is appropriate at that location, and that there are no suitable available alternative sites at a lower flood risk. Development proposed in an area at risk of flooding will be required: a) To be supported by a FRA (subject to the triggers set out below); b) To clearly demonstrate that the benefits of the development to the community, outweigh the risk of flooding when applying the sequential test and exception test (where required); c) When applying the sequential test, to clearly demonstrate that the impacts of climate change are taken into account as identified in the SFRA; d) To provide a safe access and egress route up to a 1 in 100 year event plus climate change; and e) To attenuate surface water run-off so that the run-off rate is no greater than the run-off prior to development taking place or, if the site is previously developed, development actively reduces run-off rates and volumes. The triggers for a FRA are: • All sites of 1 ha or more in Flood Zone 1; • All Sites in Flood Zone 2 or 3; • Sites that have a record of localised or groundwater flooding from the Strategic Flood Risk Assessment; and • Sites in critical drainage areas and upstream of critical drainage areas. All planning applications for major development are required to ensure that sustainable drainage systems are used for the management of surface water unless demonstrated to be inappropriate.

Policy	Details
	All new developments in areas at risk of flooding must give priority to the use of sustainable drainage systems.
EM8: Commercial Renewable / Low Carbon Energy Generation	This is the key policy for the Proposed Development as it sets out requirements for the commercial renewable / low carbon energy generation development (except the wind farms), where the permission can only be granted where the benefits of the development outweigh the long-term, and cumulative adverse environmental, economic or social impacts and which will contribute towards the delivery of the Energy Opportunities Plan and any subsequent updates). The following impact will be taken into account: • Air quality and emissions; • Biodiversity; • Geological conservation; • High grade agricultural land; • Flood risk; • The historic environment; • The landscape and visual appearance; • Traffic generation; • Local highway network; • Water quality; and • Use of Greenfield land versus previously developed land. BDBC will take a strategic view of applications, to avoid clusters where inappropriate. Proposals will need to demonstrate their links to the existing infrastructure, such as the road network or national grid.
EM10: Delivering High Quality Development	As per this policy the development proposal will be permitted where they: 1. Development will be permitted where proposals: a) Contribute to neighbourhoods and places for work and leisure that are well connected, accessible, safe, easy to navigate, and function effectively; b) Are accessible to all, promoting buildings that are durable, adaptable, and capable of responding to changing social, environmental, technological and economic conditions; c) Positively contribute to the appearance and use of streets and other public spaces, enhancing the public realm; d) Promote efficient use of land and deliver appropriate housing densities that respond to local context, as informed by community documents, and reflect whether the site is in an urban, suburban or rural location; e) Provide a co-ordinated and comprehensive scheme that does not prejudice the future development or design of adjoining sites; f) Minimise energy consumption by incorporating sustainable approaches to design. 2. Respecting Local Environment and Amenity: All development proposals must also respect the local environment and amenities of neighbouring properties, and will be permitted where they: a) Positively contribute to local distinctiveness, the sense of place and the existing street scene, taking into account relevant SPDs and community documents that highlight local character and distinctiveness valued by communities, while also allowing for innovation where appropriate; b) Ensure a high quality of amenity for occupants and neighbours, considering overlooking, access to natural light, outlook, and amenity space, in accordance with the Design and Sustainability Supporting Planning Document (SPD); c) Have due regard to the density, scale, layout, appearance, architectural detailing, materials and history of the surrounding area, as well as the relationship to neighbouring buildings, landscape features and heritage assets; d) Are visually attractive due to good architecture; e) Provide appropriate parking provision (including bicycle storage) in terms of amount, design, layout and location, in accordance with adopted parking standards; and f) Provide suitable internal and external waste and recycling storage areas, and accessible collection points for refuse vehicles, in line with the Design and Sustainability SPD, to promote effective recycling and waste disposal.

Policy	Details
EM11: The Historic Environment	This policy sets out requirements for all development to conserve or enhance the quality of the borough's heritage assets appropriately. Proposals affecting heritage assets can only be permitted, if it can: a) Demonstrate understanding of the asset's significance and setting, importance of the heritage asset and the potential impact of the proposal; b) Ensure extensions/alterations respect historic form, setting, and fabric; c) Demonstrate understanding of conservation areas to deliver high quality, respectful design; d) Use appropriate materials, design and detailing to conserve or enhance character; and e) Retain significance and character of historic buildings, including for alternative uses.
EM12: Pollution	This policy sets out that the development will be permitted only where if it does not cause pollution that harms quality of life, health, or the natural environment. Unavoidable pollution is only acceptable if adequate mitigation measures are in place. Development which is sensitive to pollution can only be permitted where: a) There would be no detrimental impact from existing or nearby uses; and b) It would not lead to unacceptable risks to health or the environment; or c) Adequate remedial or mitigation measures are proposed and can be implemented.
Economic Development	
EP4: Rural Economy	To support the rural economy, development proposals for economic uses in the countryside will be permitted where they enable the continuing sustainability or expansion of a business or enterprise, including development where it supports a farm diversification scheme and the main agricultural enterprise; All development proposals must be well designed and of a use and scale that is appropriate to the site and location when considering: f) landscape, heritage and environmental impacts; g) the accessibility of the site; h) the impacts on the local highway network including the type of traffic generated, the appropriateness for the rural roads and the impact on their character; and i) the need for residential accommodation on site. Development proposals that result in an increase in HGVs on C and U class roads, or a significant increase in other traffic on C and U class roads will generally not be permitted.

1.11.3 Green Infrastructure Strategy for Basingstoke and Deane (2018 to 2029)

The Green Infrastructure Strategy for Basingstoke and Deane provides a comprehensive framework to protect, manage, and enhance the borough's network of natural areas, parks, open spaces, and habitats (BDBC, 2018a).

Recognising green infrastructure as vital to both community wellbeing and ecological health, the strategy aims to ensure residents have access to high-quality, connected green spaces that support outdoor recreation, biodiversity, and climate resilience.

It highlights the importance of green infrastructure in sustainable development by promoting natural solutions to reduce flooding, improve air quality, and moderate urban temperatures, which are critical to low-carbon and climate-adaptive growth.

The strategy also supports the integration of green spaces within new development, contributing to energy efficiency and sustainable urban design. It encourages collaboration with partners to expand and reconnect green networks, especially in areas facing growth pressures, ensuring that new development delivers measurable biodiversity net gains and enhances the borough's natural heritage.

1.11.4 Climate Change and Air Quality Strategy for Basingstoke and Deane 2021 to 2030

In 2019, BDBC declared a Climate Emergency. The overarching goal of BDBC's Climate Strategy is to achieve net zero carbon emissions across the borough by 2030, significantly ahead of the national 2050 target (BDBC, 2021).

To support this, BDBC aims to make its own operations carbon neutral by December 2025 through the exclusive use of renewable energy and low-carbon vehicles.

The strategy requires integrating carbon reduction and sustainability into all relevant council decisions and planning processes, alongside developing action plans with measurable milestones. It emphasises collaborative working with partners such as Hampshire County Council and the Local Enterprise Partnership to create effective, climate-compliant strategies.

Public engagement is also a key requirement, with provisions for consultations and annual climate meetings to involve local residents.

Additionally, the strategy seeks to address persistent emissions from the transport sector, promote local renewable energy generation, support community energy initiatives, and improve air quality to protect public health.

1.11.5 Design and Sustainability Supplementary Planning Document

This strategy provides guidance to support high-quality, sustainable development in Basingstoke and Deane, ensuring proposals respond positively to their context and align with national and local planning policies, the Council Plan, and the Sustainable Community Strategy (BDBC, 2018b).

It sets out key urban design and sustainability principles, emphasizing the importance of contextual analysis, walkability, well-connected layouts, energy efficiency, and the protection of green infrastructure. The strategy focuses on promoting sustainable, low-carbon development by integrating environmental considerations throughout the planning and design process. Priority is given to reducing carbon emissions through energy-efficient buildings, the adoption of renewable energy technologies, such as solar PV and sustainable urban design principles that encourage walkability, green infrastructure, and low-impact transport.

Solar development is a key element of this approach, with design requirements ensuring photovoltaic systems are effectively integrated into buildings to maximize energy generation while maintaining visual harmony with their surroundings.

1.11.6 Statement of Community Involvement

The Statement of Community Involvement adopted by BDBC in November 2023 emphasises the importance of early and meaningful community engagement in the planning process (BDBC, 2023).

It encourages applicants and developers to consult with the local community before submitting planning applications, especially those likely to generate significant public interest.

This pre-application consultation should be accessible, inclusive, and transparent, ensuring that all community members can understand and comment on proposals.

BDBC recommends engaging with town or parish councils, ward councillors, neighbours, and local interest groups through methods such as public exhibitions or meetings.

1.12 Environmental Impact Assessment Process and Methodology

This Section sets out the approach taken in carrying out the EIA for the Proposed Development to satisfy the requirements of the EIA Regulations. EIA is a systematic process that examines the likely

significant effects (beneficial or adverse) on the environment resulting from the construction, operation and decommissioning of a development.

The ES has also been informed by, and produced in accordance with, relevant best practice guidance on EIA generally, for example the Institute of Environmental Management and Assessment (IEMA) 'Guidelines for Environmental Impact Assessment' (2016) and Ministry of Housing, Communities and Local Government's guidance on the requirements of the EIA Regulations.

On specific environmental subjects (i.e., landscape and visual assessment and cultural heritage), technical guidance has been referred to in the appropriate chapters of this ES.

1.12.1 Location of Information in the Environmental Statement

In accordance with Regulation 18(3) of the EIA Regulations, an ES must include:

a) "a description of the development comprising information on the site, design, size and other relevant features of the development;

b) a description of the likely significant effects of the development on the environment;

c) a description of the features of the development or measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;

d) a description of the reasonable alternatives studied by the developer, which are relevant to the 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;

e) a non-technical summary of the information referred to in sub-paragraphs (a) to (d); and

f) *any other information specified in Schedule 4 relevant to the specific characteristics of the development and to the environmental features likely to be significantly affected*."

Table 1-3 identifies the location within this ES of the information required for inclusion in accordance with Regulation 18(3) and Schedule 4 of the EIA Regulations.

Table 1-3: Information Contained within the EIA Report

Required information (EIA Regulations)	Relevant Section of this EIA Report
1. A description of the development, including in particular: (a) a description of the location of the development; (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works, and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, soil and subsoil pollution, noise, vibration, light, heat, radiation and quantities and types of waste produced during the construction and operation phases.	A description of the location of the Proposed Development and its characteristic is presented in this Chapter in **Section 1.7** and **1.8**. Materials and natural resources used, and the expected residues and emissions of the Proposed Development are reported in this Chapter in **Section 1.10**, **Chapter 2: Landscape and Visual** and **Chapter 3: Cultural Heritage**.
2. A description of the reasonable alternatives studied by the developer, which are relevant to the 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;	**Section 1.9** of this Chapter discusses the reasonable alternatives considered by the Applicant

Required information (EIA Regulations)	Relevant Section of this EIA Report
3. A description of the relevant aspects of the current state of the environment (the "baseline scenario") and an outline of the likely evolution thereof without implementation of the project as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis of the availability of relevant information and scientific knowledge.	The baseline description relevant to each topic is detailed within **Chapter 2: Landscape and Visual** and **Chapter 3: Cultural Heritage**.
4. A description of the factors specified in regulation 4(3) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	**Chapter 2: Landscape and Visual** and **Chapter 3: Cultural Heritage** detail the relevant aspects likely to be significantly affected by the Proposed Development.
5. A description of the likely significant effects of the development on the environment	The predicted significant effects of the Proposed Development set out in **Chapter 2: Landscape and Visual** and **Chapter 3: Cultural Heritage** and summarised in **Chapter 4: Schedule of Mitigation and Summary of Residual Effects**.
6. A description of the forecasting methods or evidence, used to identify and assess the significant effects on the environment, including details of difficulties (technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	**Chapter 2: Landscape and Visual** and **Chapter 3: Cultural Heritage** set out the specific methodologies and evidence used to assess significant effects and describe relevant assumptions and limitations.
7. A description of the measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment	Specific mitigation measures are reported in each relevant technical chapter (**Chapters 2** and **3**) and summarised in **Chapter 4: Schedule of Mitigation and Summary of Residual Effects**.
8. A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	The Proposed Development Site is not in a location subject to natural disasters and construction will be undertaken in accordance with best practice and relevant health and safety regulations, The approach to construction is presented in **Section 1.10** of this Chapter.
9. A Non-Technical Summary of the information provided under points 1 to 8 above.	An NTS accompanies this ES as **Volume 1**.

1.12.2 Environmental Impact Assessment Methodology

The reporting of the assessment of environmental impacts in Chapters 2 and 3 of this ES has been undertaken in a consistent, structured format, with reference to relevant technical standards, guidelines and legislation and consultation undertaken, where relevant.

The EIA Regulations refer to the requirement to report the significance of effects. A two-stage assessment has been undertaken whereby the potential effects have been identified and their significance assessed relative to the baseline and potential receptors for each technical topic.

The assessments have been split into the three development phases as each phase has the potential to give rise to different effects:

- Construction - Generally temporary / short-term effects that occur during the construction of the Proposed Development;
- Operation - Effects resulting from the use of the Proposed Development; and

- Decommissioning - Effects arising from the removal of infrastructure and restoration of the Proposed Development Site.

In most chapters within this ES, the significance of an effect is described as a function of magnitude of effects and receptor sensitivity.

Where best practice guidance exists, for example from a professional institution, some chapters follow slightly different methodologies (for example Landscape and Visual Effects are established / assessed in accordance with topic specific industry guidance with details provided within Chapter 2).

General guidelines on the assessment methodology used within technical chapters are presented in the following sections.

Receptor Sensitivity

Receptors are affected depending on their setting, size and importance. It may therefore be necessary to relate the extent of effects to the importance of the features (i.e. international, national and local) and relationship with relevant planning policy.

Additionally, consideration of the reversibility and duration of the predicted effect is required in order to determine significance.

Table 1-4 provides examples of receptor sensitivity used within the ES.

Table 1-4: Receptor Sensitivity

Sensitivity	Importance	Feature Examples
High	National / International	Residential (occupied) properties, Scheduled Ancient Monuments, Sites of schedulable quality, A-listed buildings or buildings of equivalent quality, some Conservation Areas, Sites of Special Scientific Interest (SSSI)/National Parks, Special Areas of Conservation (SAC) Ramsar designated sites, Special Protection Area (SPA), National Nature Reserve (NNR), National Marine Reserve, Habitat Directive sites, large or moderate water bodies of good ecological status, salmonid waters, primary/high productivity aquifer, properties at risk of flooding, public and private water supplies for human consumption.
Medium	Regional	B-listed buildings or buildings of equivalent quality, some Conservation Areas, archaeological remains of regional importance, Receptor of medium environmental importance or of local regional value, water bodies of good or moderate ecological status and/or Cyprinid waters, sites containing viable areas of threatened habitats listed in a Regional Biodiversity Action Plan, private water supplies for non-potable supply, moderate productivity or secondary aquifer.
Low	Local	C(s)-listed buildings or buildings of equivalent quality; archaeological remains of local importance, local nature reserve, water body of low environmental importance, low productivity aquifer.
No importance	Lesser/Unknown	Archaeological remains of lesser importance/unknown importance; greenfield; non-productive aquifer.

Magnitude of Effect

The extent or magnitude of a potential effect is based on the scale of the potential effect and will vary from site to site and location to location. **Table 1-5** provides examples of effect magnitude used within the ES.

Table 1-5: Magnitude of Effect

Magnitude of Effect	Definition
Substantial	Total loss of or major alteration to key elements or features of the pre-development conditions, such that the post-development character or composition of the feature will be fundamentally changed.
Medium	Loss of or alteration to key elements or features of the pre-development conditions, such that the post-development character of the feature will be partially changed.
Low	Minor alteration from pre-development conditions.
No change	No or unquantifiable change to pre-development conditions.

Assessment of Significance

In the determination of the significance of effect, the following criteria have been used:

- Extent (local, regional or national) and magnitude of the effect;
- Effect duration (whether short, medium or long-term);
- Effects nature (whether direct or indirect, reversible or irreversible, adverse, neutral or beneficial);
- Whether the effects occur in isolation, are cumulative or interactive;
- Performance against environmental quality standards;
- Sensitivity of the receptor; and
- Compatibility with environmental policies.

Where it has not been possible to quantify effects, qualitative assessments have been carried out, based on available knowledge and professional judgment. Where any uncertainty exists, this is noted in the relevant technical chapter of the ES.

The significance of potential effects arising from the Proposed Development has been categorised throughout this ES using the following scale:

- Negligible – no discernible deterioration or improvement to the existing environment;
- Minor (positive or negative) – where the Proposed Development will cause a small improvement (or deterioration) to the existing environment;
- Moderate (positive or negative) – where the Proposed Development will cause a noticeable improvement (or deterioration) to the existing environment; and
- Major (positive or negative) – where the Proposed Development will cause a substantial improvement (or deterioration) to the existing environment.

To enable consistent understanding of the EIA findings, standard terms are used wherever possible to classify effects throughout the EIA (major, moderate, minor and negligible), and effects are also described as being adverse, neutral or beneficial.

Where quality standards result in deviations to standard assessment methodologies, they are described in the relevant technical chapter of the ES, as applicable.

In general, the classification of an effect is based on the magnitude of the effect and sensitivity or importance of the receptor, using the matrix shown at **Table 1-6**.

Where there are deviations away from this matrix (due to the technical guidance for a specific assessment topic), this is highlighted within the relevant technical chapter and the reason for the variation explained.

Table 1-6: Classification of Effects

Receptor Sensitivity Importance	Magnitude of Effects			
	Substantial	Medium	Low	No Change
High	**Major**	**Major**	**Moderate**	Negligible
Medium	**Major**	**Moderate**	Minor	Negligible
Low	**Moderate**	Minor	Negligible	Negligible
No importance	Minor	Negligible	Negligible	Negligible

Significant Effects are only considered to be classified as 'Major' or 'Moderate'. Effects classified as 'Minor' or 'Negligible' are considered to be Non-Significant.

Mitigation Measures

Mitigation measures have been considered for each significant adverse effect identified. These measures can include:

- Changes to the Proposed Development design;
- Physical measures applied onsite; and
- Measures to control particular aspects of the construction or operation of the Proposed Development.

Wherever possible, mitigation has been developed to ensure that no significant residual (negative) environmental effects result from the Proposed Development. A summary of mitigation measures is presented in Chapter 4 of this ES.

Cumulative and Combined Effects

In addition to the assessment of effects resulting from the Proposed Development, an assessment (where appropriate) is also undertaken of the likely interrelationship between these effects, as well as cumulative effects with other developments.

The assessment of interrelationship effects is required by the EIA Regulations and refers to the interaction between the different environmental aspects of the Proposed Development, for example between noise and dust effects.

The EIA Regulations also require that the cumulative effects of the Proposed Development in combination with other existing or approved projects is considered.

Assumptions and Limitations

The EIA process is designed to enable good decision-making based on the best possible information about the environmental implications of a proposed development. However, there will always be some uncertainty inherent in the scale and nature of the predicted environmental effects.

This uncertainty arises because of the level of detailed information available at the time of the assessment, the potential for minor alterations to project designs following completion of the EIA Report and/or due to the limitations of the prediction process. Where specific assumptions have been made in relation to the technical environmental assessments, these are reported in the relevant technical chapters of this ES.

The environmental effects identified in this ES, and the level of mitigation described, effectively set the minimum standard which will be achieved by the Proposed Development.

1.13 Copies of the Environmental Statement

In the interests of sustainability, we encourage readers to view the electronic version of the application, which are available on the project website: https://stokeslanesolarfarm.co.uk/

Digital copies in the form of a USB, as well as hard copies of the ES are available by request, either in digital or hard copy, from the Applicant, via email: Janet.Wagstaff@wind2.co.uk, or by writing to:

Janet Wagstaff

Wind2

Linden House

Mold

CH7 1XP

Charges for copies are:

- £2,000 for a paper hard copy (full ES and Supporting Documents, including NTS);
- A paper hard copy of the NTS is free; or
- £15 for a USB with all documents.

1.14 References

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