



# Botley West Solar Farm

Preliminary Environmental Information Report

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**Volume 1**

**Chapter 1: Introduction**

30 November 2023

## Approval for issue

Christopher Leconte

30 November 2023

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## Glossary

Term	Meaning
The Applicant	SolarFive Ltd
The Project	The Botley West Solar Farm (Botley West) Project

## Abbreviations

Abbreviation	Meaning
CDC	Cherwell District Council
DCO	Development Consent Order
DESNZ	Department of Energy Security and Net Zero
EIA	Environmental Impact Assessment
ES	Environmental Statement
NETS	National Electricity Transmission System
NGET	National Grid Electricity Transmission
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
NTS	Non-Technical Summary
OCC	Oxfordshire County Council
PA 08	The Planning Act 2008
PEIR	Preliminary Environmental Information Report
PINS	The Planning Inspectorate
PV	Photovoltaic
PVDP	Photovolt Development Partners GmbH
SoCC	Statement of Community Consultation
SPV	Special Purpose Vehicle
VWHDC	Vale of White Horse District Council
WODC	West Oxfordshire District Council

## Units

Unit	Description
ha	Hectares
MWe	Megawatts electric – electric output capability of the Project

# 1 Introduction

## 1.1 Introduction

- 1.1.1.1 This Preliminary Environmental Information Report (PEIR) has been prepared to present the preliminary environmental assessment for the Botley West Solar Farm (Botley West), hereafter also referred to as the 'Project'. Its purpose is to present the preliminary findings of the Environmental Impact Assessment (EIA) being undertaken for the Project, for the purposes of statutory consultation in accordance with Sections 42 and 47 of the Planning Act 2008 (PA 08). PA 08 was introduced to provide a new development consent regime for 'Nationally Significant Infrastructure Projects' (NSIP).
- 1.1.1.2 The PEIR has been prepared by RPS for Photovolt Development Partners GmbH (PVDP) on behalf of the Applicant, SolarFive Ltd. (SolarFive). SolarFive is a licence holder under the Electricity Act 1989. SolarFive is also a company registered in England and Wales (company no. 12602740).
- 1.1.1.3 The Project will comprise the construction, operation, maintenance and decommissioning of a photovoltaic (PV) solar farm and associated infrastructure, for approximately 840MWe of solar generation, in parts of West Oxfordshire, Cherwell and Vale of White Horse Districts. The Project will export electricity for connection to the National Grid at Botley West, and connection is assumed to be October 2027, with the first full year of operation anticipated in 2028.
- 1.1.1.4 The Project is classed as a NSIP for the purposes of PA 08, and requires an application for a Development Consent Order (DCO). The Applicant therefore intends to submit an application for development consent to the Planning Inspectorate (PINS), as required under PA 08. The Applicant wishes to seek temporary consent, for a period of 42 years from the grant of the DCO.
- 1.1.1.5 The Project is also considered to be 'EIA development' as defined by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the 'EIA Regulations'), requiring EIA. The application will be accompanied by an Environmental Statement (ES), prepared in accordance with the EIA Regulations, along with other required documents. Chapter 4 of the PEIR sets out the approach to EIA, and includes a table which highlights how the PEIR complies with Schedule 4 of the EIA Regulations.
- 1.1.1.6 Under Regulation 12 of the EIA Regulations, Applicants are required to set out, in a Statement of Community Consultation (SoCC), how they intend to publicise and consult on preliminary environmental information relating to the Project. Regulation 12(2) states that the purpose of a PEIR is to provide sufficient information to enable stakeholders to develop an informed view of the likely significant effects of the development (and of any associated development). Advice Note 7 from PINS acknowledges, at Section 8, that the PEIR is a compilation of the environmental information available at the point in time that it has been produced.

1.1.1.7 The PEIR also sets out the proposed content, methodologies and key issues to be included within the EIA process and the resulting ES to be submitted with the application for examination.

1.1.1.8 In order to inform the scope of the EIA, the Applicant sought a Scoping Opinion from PINS (on behalf of the Secretary of State) on 15 June 2023. The Scoping Opinion was subsequently received on 24 July 2023 (see Appendix 3 - 01) and is reflected in the format and contents of this preliminary assessment report.

1.1.1.9 This introductory Chapter is followed by a description of:

- the Existing Baseline (Chapter 2);
- the Consenting and Consultation Process (Chapter 3);
- the Approach to Environmental Assessment (Chapter 4);
- the Need for the Project, National Planning Policy, and Alternatives Considered (Chapter 5); and
- the Project (Chapter 6).

The PEIR is also informed by the following technical assessment chapters, containing preliminary environment information on the following topics that have been scoped into the EIA:

- Historic Environment (Chapter 7);
- Landscape and Visual Resources (Chapter 8);
- Ecology and Nature Conservation (Chapter 9);
- Hydrology and Flood Risk (Chapter 10);
- Ground Conditions (Chapter 11);
- Traffic and Transport (Chapter 12);
- Noise and Vibration (Chapter 13);
- Climate Change (Chapter 14);
- Socio-economic (Chapter 15);
- Human Health (Chapter 16);
- Agricultural Land Use and Public Rights of Way (Chapter 17);
- Waste and Resources (Chapter 18);
- Cumulative Effects and Inter-relationships (Chapter 19); and
- Summary of Effects (Chapter 20).

1.1.1.10 Technical appendices on Air Quality, Glint and Glare and Tree Protection are also provided, along with Figures and Appendices, and a Non-Technical Summary (NTS).

1.1.1.11 Environmental impacts arising from the Project have been studied systematically, in line with the EIA Regulations, the Scoping Opinion, appropriate methodologies and industry best practice, and the preliminary results are presented within the PEIR. The baseline for the assessment has

been derived from surveys and studies within and around the DCO Site. This is explained further in Chapter 4, under the Approach to Environmental Assessment, and in the methodology section of each technical assessment chapter.

- 1.1.1.12 The PEIR will be consulted on as part of the second (statutory) phase of public consultation that is proposed to commence in December 2023. Following consultation, all comments on the PEIR will be taken into account, and potential changes to the Project will be reviewed and considered as a result of the comments received, in preparation of the ES that will accompany the application to PINS for development consent.
- 1.1.1.13 The PEIR presents preliminary findings of the environmental assessments undertaken to date. It does not represent a final project design, or include a full environmental assessment, with proposed conclusions and mitigation.
- 1.1.1.14 The Applicant is seeking the views of consultees on the information contained within this report. The opportunity will remain within the process, up to the submission of the DCO application, for both the EIA and the project design to be refined.

## 1.2 Project Location

- 1.2.1.1 The Project will be located in the county of Oxfordshire, across an area of approximately 1,300 ha. The Project location extends from an area of land in the north (the Northern Site), situated between the A4260 and the Dorn River Valley near Tackley and Wootton, through a central section (the Central Site), situated broadly between Bladon and Cassington, and connecting to a section further south near to Farmoor Reservoir and north of Cumnor (the Southern Site), where the Project will connect to the National Grid transmission network. The name 'Botley West' is derived from the location of the grid connection point.
- 1.2.1.2 The Project lies within the administrative areas of Cherwell (CDC), West Oxfordshire (WODC) and Vale of White Horse (VWHDC) District Councils, and Oxfordshire County Council (OCC). The majority of the Project lies within West Oxfordshire and within the Oxford Green Belt.
- 1.2.1.3 The Project Site Location and the Project Boundary Plan (representing the extent of the DCO Order Limits) are shown in Volume 2, Figure 1.1. The Project Masterplan Overview, which provides a design layout with key parameters, is shown in Volume 2, Figure 1.2. The area containing solar arrays will cover approximately 890ha in total.
- 1.2.1.4 The existing baseline for the Project, and a more detailed description of the locations of the proposed development work, are set out in further detail in Chapter 2.

## 1.3 The Applicant

- 1.3.1.1 The Applicant, SolarFive, is the 'special purpose vehicle' (SPV) for the Project and has been awarded a generation licence by Ofgem and offered a grid connection by National Grid Electricity Transmission (NGET) from October

2026. SolarFive is a company registered in England and Wales (company no. 12602740) and is a licence holder under the Electricity Act 1989.

- 1.3.1.2 As a licence holder, SolarFive will adhere to its duties under Schedule 9 of the Electricity Act 1989 to protect the environment. As part of the due process required to support the proposals, the Applicant will produce a separate Schedule 9 Statement, which will describe how it will carry out its duties with ‘regard to the preservation of amenity’.
- 1.3.1.3 PVDP will act on behalf of SolarFive and, in liaison with its technical consultant team, will prepare and submit the DCO application, including the ES.
- 1.3.1.4 SolarFive is jointly owned by the two founders of PVDP, a Berlin-based developer of solar farms. PVDP has been successfully developing solar assets in Europe and Japan for the last 18 years, with 1.0GW built to date.

## 1.4 Overview of the Project

- 1.4.1.1 The UK Government has legislated to commit the country to achieving net zero carbon emissions by 2050, and to de-carbonising electricity by 2035. These commitments mean that the UK urgently needs more renewable forms of electricity to be produced. The reliance on fossil fuels as part of the UK’s energy mix will have to be displaced by cleaner and more secure sources of energy, resulting in greatly increased renewable electricity demand. Already, many conventional gas-fired power stations have closed and many of the older nuclear power stations will no longer be generating to support the nation’s energy needs. Botley West’s generation output will be vitally important if the Government’s commitments are to succeed, significantly helping to deliver the transition to net zero.
- 1.4.1.2 Botley West is formed of three separate but related solar farm areas, (Northern, Central and Southern Sites) with interconnecting cables, which together would generate renewable power through photovoltaic (PV) panels. The Project aims to deliver approximately 840MWe of power to the National Electricity Transmission System (NETS), providing secure and clean energy of an equivalent level to meet the needs of approximately 330,000 homes.
- 1.4.1.3 PA 08, as amended, defines Nationally Significant Infrastructure Projects (NSIPs). Part 3, paragraph 14(1) and 15(2) of the Act describes the construction of a generating station exceeding 50MWe in England (that does not generate electricity from wind and is not an offshore generating station) as an NSIP.
- 1.4.1.4 The Applicant’s Project is a NSIP as the generation capacity of Botley West will be approximately 840MWe. This means a DCO, from the Secretary of State for the Department of Energy Security and Net Zero (DESNZ), will be required before the Project can proceed. PVDP is preparing such an application and after further design, consultation and assessment, they aim to submit an application for consent in mid 2024.
- 1.4.1.5 The Applicant will ensure that the local community and key stakeholders are informed about and consulted upon the proposals to construct, operate and decommission the Project, prior to an application for development consent being made to the Secretary of State. A formal programme of consultation has



been discussed, and a draft SoCC had been reviewed and agreed with the relevant host authorities. The Applicant also completed a first phase of informal consultation during November and December 2022.

- 1.4.1.6 Blenheim Estate is the main landowner for the Project. PVDP intends to lease the land from Blenheim Estate alongside other supportive landowners in the local area. This is a common arrangement when developing solar farms in the UK.
- 1.4.1.7 The majority of the land proposed for the Project is currently used for arable crops or is otherwise down to pasture.
- 1.4.1.8 The Project's solar arrays (comprising all the mounting structures, frames and foundations) will be connected by underground electrical cables within each section of the site, and via underground electric cable to the substation at the grid connection point. The interconnecting cable route will largely follow the public highway, but some parts will cross land controlled by the Applicant.
- 1.4.1.9 The consent being sought is a temporary one for 42 years from the date of any DCO consent granted for the Project. At the end of this period all above ground infrastructure (excluding the NGET substation) and equipment will have been removed, along with the cables beneath the main solar array areas, with the land reverting back to its previous agricultural use.
- 1.4.1.10 Cables located beneath the public highway are not, however, proposed to be removed following the end of the period of consent.
- 1.4.1.11 The approach that the Applicant will take to assessment is to define and describe the Project by reference to maximum (and where relevant, minimum) design parameters, commonly referred to as the 'Rochdale Envelope'. This approach is described further in Chapter 4, at Section 4.2.
- 1.4.1.12 The Project will connect to a new NGET system, via a new National Grid 400kV substation, to be located close to the existing National Grid 400kV power line, which runs between Cowley, in Oxford, westwards to Walham in Gloucestershire. Discussions have been ongoing with NGET regarding the location and design for their substation based upon their own assessment and evaluation work. Whilst, at the time of writing this PEIR, a final decision has yet to be taken by NGET, it is likely that the NGET substation will be located in one of two possible locations;
  - 1. On land within the Applicant's control, at its Southern Site, at the western most extremity, south of the Farmoor Reservoir; or
  - 2. On land near the Applicant's Southern Site, to the west of that site, south of the Farmoor Reservoir.
- 1.4.1.13 For assessment purposes, the Applicant assumes that the NGET substation will be within the Applicant's site, as described in Option 1 above, and powers will be taken to consent that substation as part of the Applicant's DCO.
- 1.4.1.14 If NGET decides not to locate their substation within the Applicant's site, then PVDP will cumulatively assess:
  - a. an alternative location for the NGET substation, assumed to be close to the Southern Site at its western end, with NGET seeking consent via the Town and Country Planning Act 1990; and

- b. the substitution of solar panels for the substation on the land referred to in Option 1 above.

1.4.1.15 The area required to be set aside for the NGET substation amounts to approximately 3.8 ha. Within that area it is assumed that the substation itself will occupy a footprint of approximately 165m by 135m, with a maximum building height of 15m, excluding connecting tower structures. It is understood, from NGET, that the building containing the switchgear will be 14m high, 16m wide and 76m in length, with an annexe building alongside, which will be 3.6m high, 15m wide and 76m in length.

## 1.5 Legislative Context

1.5.1.1 The statutory framework for determining applications seeking development consent is provided by PA 08. Section 104 (2) of the Act states that:

- (2) *“In deciding the application the Secretary of State must have regard to —*
- a) any national policy statement which has effect in relation to development of the description to which the application relates (a “relevant national policy statement”),*
  - b) any local impact report (within the meaning given by section 60(3)) submitted to the Commission before the deadline specified in a notice under section 60(2),*
  - c) any matters prescribed in relation to development of the description to which the application relates, and*
  - d) other matters which the Secretary of State thinks are both important and relevant to its decision.”*

1.5.1.2 In this respect, Section 104 (3) provides that the Secretary of State must decide applications for development consent in accordance with any National Policy Statement (NPS) except to the extent that the Secretary of State is satisfied that one or more of the following exceptions apply:

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

1.5.1.3 At present, there is no specific NPS which deals with ground mounted solar projects, and therefore Section 105 of the [Planning Act 2008] applies. Section

105 of the [PA 08] sets out that when deciding an application, the Secretary of State must have regard to “(a) any local impact report [...], (b) any matters prescribed in relation to development of the description to which the application relates, and (c) any other matters which the Secretary of State thinks are both important and relevant to the Secretary of State's decision”.

1.5.1.4 Aspects of (i) Overarching National Policy Statement for Energy (EN-1) (2011), National Policy Statement for Renewable Energy Infrastructure (EN-3) (2011) and (iii) National Policy Statement for Electricity Networks Infrastructure (EN-5) (2011) are relevant to the Secretary of State's decision making and are therefore important and material considerations, in addition to other relevant and important national and local planning policies.

1.5.1.5 The Consenting Process is further explained in Chapter 3, and the EIA Regulations and the approach to Environmental Assessment, is explained in detail in Chapter 4.

## National and Local Planning Policy

### National Policy Statements

1.5.1.6 The application, including the EIA, will consider the National Policy Statements (NPS) that will be important and relevant to the Secretary of State's decision as to whether to grant a DCO for the Project.

1.5.1.7 NPS are designated under PA 08 and set out the Government's policy for the delivery of energy infrastructure, providing the legal framework for planning decisions. The extant suite of designated NPS was published in 2011.

1.5.1.8 In November 2020, the National Infrastructure Strategy established a National Infrastructure Planning Reform Programme, to make the NSIP system more effective. A 'call for evidence' process began in November 2021 with the commencement of the Government consultation Draft National Policy Statements – Planning for new energy infrastructure. This ran between 6 September and 29 November 2021, with the draft NPS also being the subject or parliamentary scrutiny between 6 September 2021 and 28 February 2022.

1.5.1.9 Government published a response to the 2021 consultation, which resulted in the strengthening of the NPS in line with the British Energy Security Strategy. A second consultation on the documents, entitled “*Nationally Significant Infrastructure: action plan for reforms to the planning process*” was published on 23 February 2023 and closed on 25 May 2023.

1.5.1.10 The energy NPS subject to consultation comprised the overarching NPS for energy (EN-1) alongside technology-specific NPS (EN-2 to EN-5):

- Draft EN-1: Overarching NPS;
- Draft EN-2: Fossil fuel electricity generating infrastructure;
- Draft EN-3: Renewable Energy infrastructure;
- Draft EN-4: Gas supply infrastructure & gas and oil pipelines; and
- Draft EN-5: Electricity Networks Infrastructure.

- 1.5.1.11 EN-1 sets out the 'need case' for energy infrastructure projects, and planning guidance on assessment criteria that are common across a number of technologies. EN-2 to EN-5 refer to the need case in EN-1 and include planning guidance on the assessment of technology specific criteria.
- 1.5.1.12 The revisions proposed to draft EN-3 Renewable energy infrastructure emphasise the central role that solar will play in decarbonising the energy sector. The scale of such proposals and their impacts are also recognised.
- 1.5.1.13 The transitional provisions in the draft EN-1 state that the suite of NPS will only have effect once designated in relation to those applications that are accepted for examination after the date of designation. The potential date for submission of the Botley West application may mean that there is no NPS specifically in relation to ground mounted solar, but the draft NPS are important and relevant, as defined in S.105 (2)(c) of the 2008 Act, and are matters which the Secretary of State should have regard to and place significant weight on, given that they are consistent with the British Energy Security Strategy and reflect the Government's latest energy related policy.
- 1.5.1.14 As explained in Section 4 of this Chapter, it is currently assumed that the NGET substation and its connections to the existing 400kV OHL at Botley West will be consented within the Applicant's DCO. If, however, NGET decide to select a different location for the substation, outside the Applicant's site boundary, then NGET is likely to secure a consent separately under the Town and Country Planning Act 1990.

### **National Planning Policy Framework**

- 1.5.1.15 The National Planning Policy Framework (NPPF), published in 2012 and revised in September 2023, sets out the Governments planning policies for England and how these are to be applied, supported by the National Planning Practice Guidance (NPPG).
- 1.5.1.16 NPPF paragraph 5 sets out that NSIP will be determined in accordance with national policy statements, other relevant matters and the NPPF. It reads,  
*"The Framework does not contain specific policies for nationally significant infrastructure projects. These are determined in accordance with the decision-making framework in the Planning Act 2008 (as amended) and relevant national policy statements for major infrastructure, as well as any other matters that are relevant (which may include the National Planning Policy Framework). National policy statements form part of the overall framework of national planning policy, and may be a material consideration in preparing plans and making decisions on planning applications."*
- 1.5.1.17 A detailed analysis of the relevant considerations arising from the NPS and the NPPF is provided, for each environmental topic and the cumulative effects, in Chapters 7 to 19 of this PEIR.

### **Local Planning Policy**

- 1.5.1.18 Whilst the NPS are the primary consideration in deciding DCO applications, local Development Plans are also important and relevant. District and County Planning Policy, comprising adopted and relevant emerging Development

Plans, will be taken into account in assessing the proposals for the Project. Local Planning Policy will also influence the content of local impact reports, which the relevant host authorities will produce following the submission of the application.

- 1.5.1.19 The Project lies within the administrative areas of West Oxfordshire, Cherwell and Vale of White Horse Districts, and within Oxfordshire County Council, and for the area within which the Project sits the adopted Development Plans currently comprise the following;
- West Oxfordshire Local Plan 2031 adopted in 2018, supplemented by the Salt Cross Garden Village Area Action Plan adopted in 2022;
  - The ‘made’ Neighbourhood Plans for Woodstock (2023) and Eynsham (2020);
  - Cherwell Local Plan 2011-2031 (Part 1) including saved policies from the Cherwell Local Plan 1996, and its Partial Review, adopted in 2020, to support Oxford’s unmet housing needs;
  - Vale of White Horse Local Plan 2031 Parts 1 and 2;
  - The ‘made’ Neighbourhood Plan for Cumnor (2021); and
  - The Oxfordshire Minerals & Waste Local Plan (2017).
- 1.5.1.20 The Applicant has had regard to relevant policy in compiling this PEIR, and will continue to do so in preparing the ES. Each technical chapter contains a summary of the relevant Local Development Plan policies.
- 1.5.1.21 The Applicant also intends to produce a stand-alone Planning Supporting Statement, which will set out key policy considerations, including relevant policy and strategies at national level, assess the project against these and the merits of the Project itself, and draw a planning balance and conclusions on the extent to which the Project complies with policy. This policy context is referred to further in Chapter 5: Need, National Planning Policy, and Alternatives Considered of the PEIR.
- 1.5.1.22 Reg 4 (4) of the EIA Regulations requires that the ES is prepared by competent experts and must be accompanied by a statement from the Applicant outlining the relevant expertise or qualifications of such experts. This is provided as Appendix 1.2 to this Chapter, see Volume 3, and is discussed further in Chapter 4 on the Approach to EIA.