Non-Technical Summary

Postcombe and Lewknor Solar Farm Environmental Statement

Postcombe and Lewknor Solar Farm Limited

Prepared by:

SLR Consulting Limited

3rd Floor, Summit House, 12 Red Lion Square,
London, WC1R 4QH

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Revision Record

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Acronyms and Abbreviations

CEMP	Construction Environmental Management Plan
EIA	Environmental Impact Assessment
LVIA	Landscape and Visual Impact Assessment
MW	Megawatt
NTS	Non-Technical Summary
PV	Photovoltaic

1.0 Background

1.1.1 This Non-Technical Summary (NTS) is part of an Environmental Statement (ES) which accompanies a planning application made by Lewknor and Postcombe Solar Farm Limited (the Applicant), to South Oxfordshire District Council (SODC) for permission to install and operate Postcombe and Lewknor Solar Farm (hereafter referred to as the 'Proposed Development') at a site centred on British National Grid (BNG) Reference SU 70800 98800 (the 'Site').

1.1.2 The ES supports and informs the planning application for the Proposed Development. Potential environmental impacts are identified, assessed, and mitigation measures proposed in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 (as amended), hereafter referred to as 'the EIA Regulations'.

1.1.3 Renewable energy is a key factor in helping the United Kingdom reach its target of Net Zero by 2050. The Proposed Development would contribute towards international and national targets for the generation of renewable energy and reduction in greenhouse gas emissions.

2.0 Purpose of the Environmental Statement

2.1.1 SLR Consulting was appointed by the Applicant to assess the environmental impacts of the Proposed Development in accordance with the EIA Regulations.

2.1.2 The ES process is reported in an ES, which describes the design iteration process and methods used to assess the beneficial and adverse environmental impacts predicted to result from the construction, operation and decommissioning of the Proposed Development. Where appropriate, it also sets out mitigation and enhancement measures designed to prevent, reduce, and, if appropriate, offset any significant adverse environmental impacts, as well as providing environmental enhancement. An assessment of residual effects – those expected to remain following implementation of mitigation and enhancement measures – is also presented. This document presents a summary of the findings of the EIA Report in non-technical language.

3.0 Availability of the Environmental Statement

3.1.1 Electronic copies of the ES, including all figures, appendices and accompanying documents are available to view on the project website: https://postcombeandlewknorsolarfarm.co.uk

3.1.2 Electronic copies of the ES can also be accessed on the South Oxford District Council planning portal at: www.southoxon.gov.uk

4.0 Representations to the Application

4.1.1 Any representations to the planning application should be made directly to SODC via their website: www.southoxon.gov.uk or by emailing enquiries@southoxon.gov.uk.

4.1.2 Representations should be dated, clearly stating the name of the project (in block

capitals), return email address, and postal address of those making representations. The application will be given an individual reference number once validated, it would be advisable to include this is possible for ease of reference for the LPA.

4.1.3 All representations should be received no later than the date falling 28 days from the date of the last published notice in the local and national press, although representations received after this date may be considered. Additional information which is submitted by the Applicant will likely be subject to further public notice in this manner, and representations to such information will be accepted as per this notice.

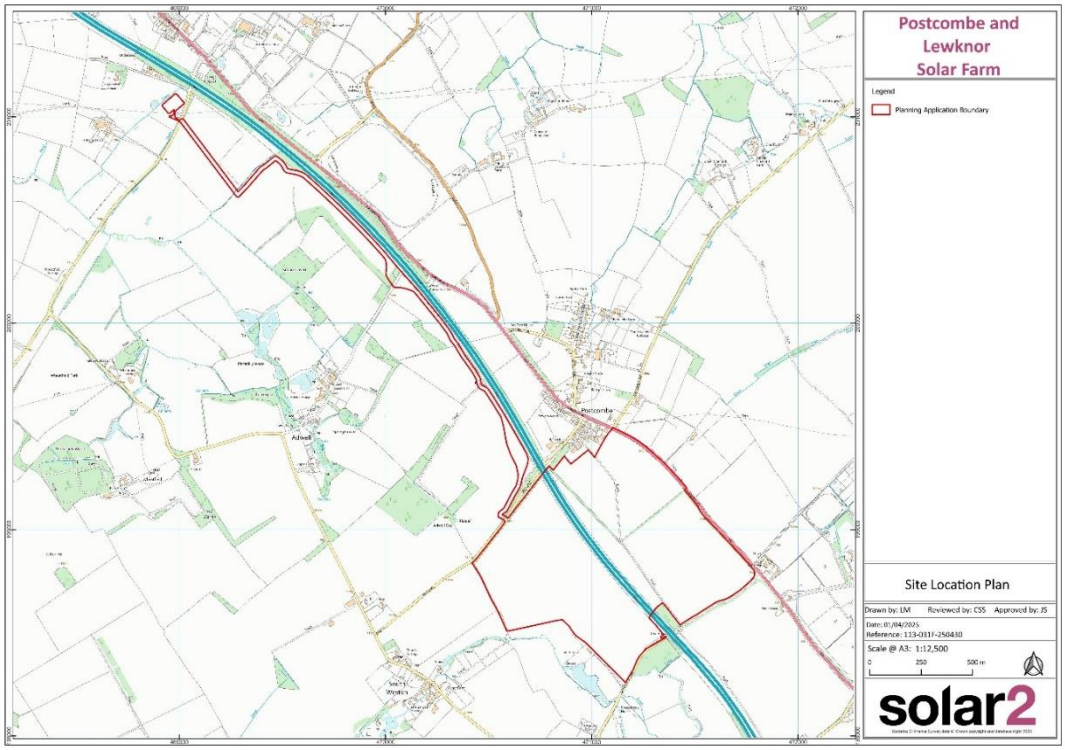
5.0 Site Location and Description

5.1.1 The Site consists of two components; the 'cable corridor' and the 'solar site' which are viewed together as the application site.

5.1.2 The solar site lies approximately 50 m south of the village of Postcombe, 450 m north of the village of Lewknor, and 4.3 km south of the town of Thame in the South Oxfordshire Council area. The solar site consists of two main land parcels which border either side of the M40 motorway, with the A40 to the east, Weston Road to the west and Salt Lane to the north (refer to **Graphic 1**). The cable corridor extends for approximately 3 km from the substation at the solar site to the at Harlesford Solar Farm substation.

5.1.3 The Site area is approximately 96 ha including the proposed cable corridor. The Site is predominantly used for arable agriculture purposes with small sections of woodland. The solar site is largely enclosed by trees and hedgerows with more open sections to the north and north-east.

Graphic 1 – Site Location Plan

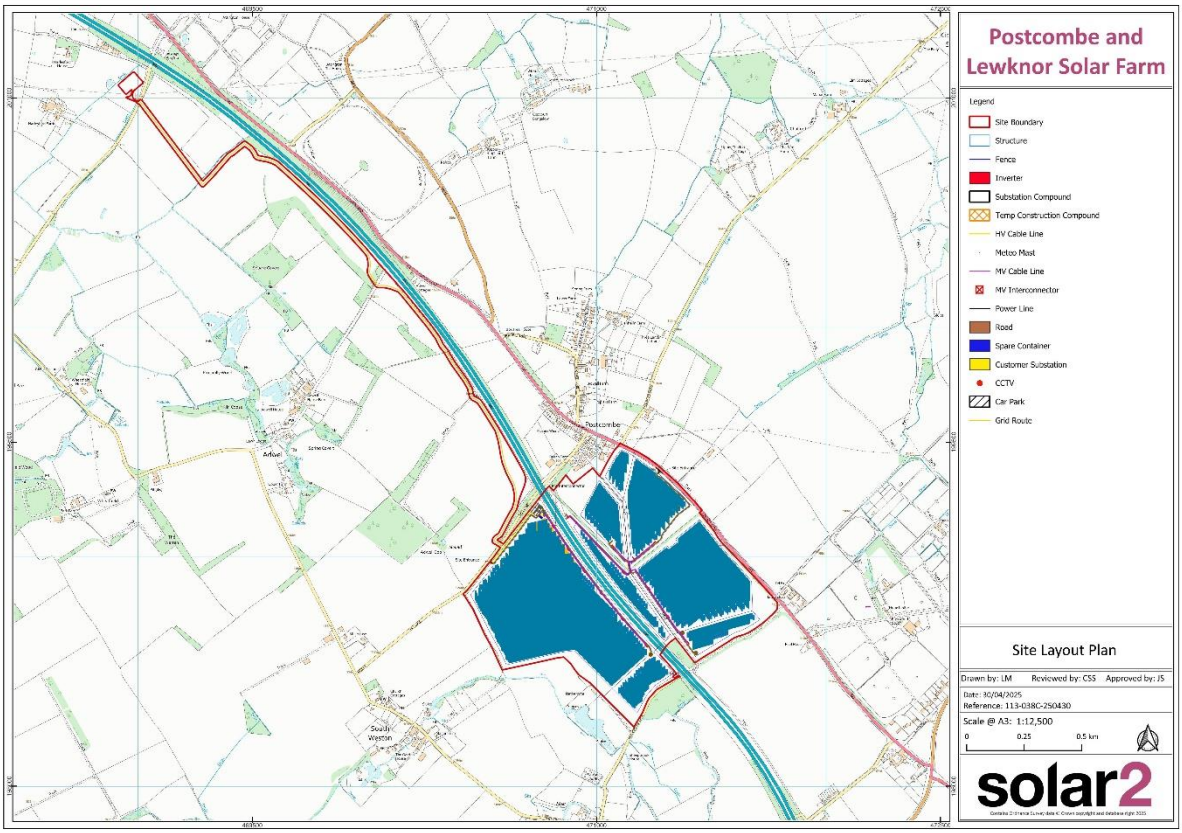


6.0 The Proposed Development

6.1.1 The Proposed Development comprises a ground mounted solar photovoltaic (PV) array and an on-site substation and a cable corridor. The Proposed Development will have an export capacity of up to 49.9 MW. The Proposed Development layout is shown in **Graphic 2.**

6.1.2 The PV panels will be mounted upon metal frames and will be angled horizontally up to 60°, arranged in rows. The maximum panel height will be 3.1 m above ground level (AGL). Inverters and transformers will convert the electricity generated for export to the local network.

Graphic 2 – Site Layout Plan



6.1.3 The Proposed Development will require a distribution network operator (DNO) substation and control building. These will be located on the western area of the solar site with the control room adjacent to the substation. The total area for the substation compound will be approximately 1,650 m^2 or 0.17 ha. It will be approximately 66 m in length by 25 m wide with a maximum height of 8 m for the transformer component (refer to Figure 4.5 of the ES for elevation details). The substation will consist of electrical infrastructure required to facilitate the export of electricity from the Proposed Development to the National Grid via a cable connection.

6.1.4 The construction of the Proposed Development is expected to take up to 14 months and is anticipated to include; the installation of access roads, security fencing, cable corridor, cable trenches, solar mounting frames, and electrical

infrastructure. A Construction Environmental Management Plan (CEMP) will be implemented to minimise impacts such as noise, dust, and pollution.

6.1.5 There will be two points of vehicular access to the solar site during construction and operation of the Proposed Development, one for each of the two land parcels that straddle the M40. Access to the eastern land parcel will be taken from a new junction on the A40 to the south of Postcombe. Access to the western land parcel is to be taken from Salt Lane from a new junction. Access between the two parcels will be via the A40 and Salt Lane.

6.1.6 Once operational, the Proposed Development will require limited maintenance and is expected to operate for 40 years. At the end of this period, the Site will be fully decommissioned and restored to agricultural use. A detailed Decommissioning and Restoration Plan will be agreed with SODC and secured through an appropriately worded condition.

6.1.7 The Proposed Development has been designed to connect to the electricity network by underground cable via Harlesford Solar Farm. The connection point at Harlesford Substation is located approximately 3 km west of the solar site.

7.0 Site Selection and Design Evolution

7.1.1 The Site was identified as a suitable location for a solar farm following feasibility studies and engagement with landowners. A range of environmental, technical and planning considerations were assessed, including landscape sensitivity, proximity to dwellings, grid connection potential, topography, and existing infrastructure.

7.1.2 A 5 km search radius from the point of connection at Harlesford Substation (SP 68973 01070) was chosen because this is felt to be a maximum cable extent before reducing the potential of the cable efficiencies and increasing potential for environmental impacts. To the south-east of Harlesford Substation the area is dominated by the Chilterns National Landscape to the south and Green Belt to the north-west. Generally, to the north-west there are increased levels of surface water and river flooding around Oxfordshire. In addition, generally within the study area there is understood to be large areas of Grade 2 agricultural land.

7.1.3 Further details of this desktop assessment can be found in Chapter 3 of the ES.

7.1.4 The design of the Proposed Development followed an iterative approach informed by detailed environmental surveys, consultation with stakeholders, and community engagement. The goal was to balance optimal energy generation with minimising potential environmental and visual effects.

7.1.5 The layout of the Proposed Development evolved as follows:

7.1.6 **Layout 1** (Figure 3.1 of the ES) was informed by preliminary desktop environmental studies, and the layout was the first layout presented to SODC via their pre-application consultation process in January 2022. This layout included an additional field that is not included within the final design due to discussions with the SODC and concerns over proximity to the National Landscape.

7.1.7 **Layout 2** (Figure 3.2 of the ES) was informed by ongoing survey work. It was presented to SODC in September 2023 through a second round of pre-application

consultation. Key changes to the layout were:

- amendment to the red line boundary with increased set back from the village of Lewknor;
- increased set back from the residential property close to the south-west of the solar site;
- the substation and other infrastructure were placed in the north-eastern corner of the western land parcel, away from Postcombe and other nearby residential properties, to minimise visibility;
- the overhead line and Public Right of Way were buffered to allow for sufficient space for public access once the Proposed Development is operational; and
- avoidance of identified badger sett locations.

7.1.8 **Layout 3** (Figure 3.3 of the ES) is the finalised layout which was informed by further consultation with the local community, including an in-person community engagement event. The feedback also contributed to the name change of the project from 'Lewknor Solar Farm' to 'Postcombe and Lewknor Solar Farm'. The iterative impact assessment process has resulted in the following principal environmental and technical changes:

- inclusion of a cable corridor for the grid connection;
- a further 10 m set back from the village of Postcombe;
- additional space allocated for landscape mitigation planting between the Site and the village of Postcombe, including a new woodland block and new hedgerow planting; and
- provision of sustainable drainage features including swales along the north-eastern and south-western boundaries.

7.1.9 This iterative design process has helped ensure the final layout responds sensitively to both the site context and environmental considerations.

8.0 Environmental Impact Assessment

8.1.1 The EIA process for the Postcombe and Lewknor Solar Farm has been carried out in line with relevant legislation, guidance and best practice. Its purpose is to identify potential environmental effects from the development and to propose measures to avoid, reduce or mitigate them.

8.1.2 The Proposed Development qualifies as a 'Schedule 2' development under the EIA Regulations. Following a formal scoping process, the following environmental topics were scoped into the assessment to ensure a robust and transparent process:

- Landscape and Visual Impact Assessment;
- Cultural Heritage and Archaeology;
- Ecology;
- Land Take, Soil Quality and Agricultural Land; and
- Glint and Glare.

8.1.3 The assessment considered the construction, operation and decommissioning phases, as well as the likely evolution of the environment if the project does not proceed. Each environmental topic was assessed for potential impacts, both in isolation and cumulatively with other nearby developments. Where necessary, mitigation was identified and incorporated into the project design or management plans.

8.1.4 The EIA was supported by a team of qualified experts, with assessment methods tailored to each topic. Baseline surveys were carried out from 2022 into early 2025, and professional judgement was used to account for uncertainties and assumptions.

8.1.5 The results of the assessment are presented in the ES, and this NTS provides a concise overview of the findings.

8.1.6 A summary of the baseline conditions, the proposed mitigation, the resulting residual effects and the cumulative effects for each topic is provided below. Full details of the EIA for each of the topics are provided in **Volume 1, Chapters 5 to 9** of the ES.

9.0 Landscape and Visual Amenity

9.1.1 Chapter 5 of the ES provides an assessment of the effects of the Proposed Development with regard to its landscape and visual impact. The majority of the effects identified for the Proposed Development have been assessed as being non-significant.

9.1.2 The Site is not located within the Chilterns National Landscape; however, its location in the setting of the National Landscape means it will be intermittently visible from elevated locations within the Chilterns, in views to the west and north-west, but experienced in the context of the M40 and the solar schemes at Cornwell and Harlseford (and subsequently Dodwells).These solar schemes are located within the setting of, and visible from, the National Landscape and most of them are visually associated with the M40, which demonstrates the existing influence of renewable development in the wider landscape.

9.1.3 The Site is located in Landscape Character Area (LCA) 6B Chiltern Chalk Escarpment Footslopes, an area which was previously described as LCA 5 Eastern Vale Fringes, with characteristics of both evident. To present a more balanced assessment of the effects on landscape character, LCA 6B has been considered in two parts. There will be indirect effects on both LCA 11C Eastern Upper Vale, which is immediately adjacent to the solar site's eastern boundary, and LCA 2A Chiltern Wooded Chalk Escarpment which is within the Chilterns National Landscape.

9.1.4 Key visual receptors include those passing through and adjacent to the solar site on the Public Right of Way (PRoW) network and users of the major road network including the M40 where views from the latter would be fleeting. For visual receptors within the Chilterns National Landscape the Proposed Development will

be visible in the context of the M40, local road network and recently constructed solar schemes.

9.1.5 The M40 is a noted significant visual and aural detractor within the landscape affecting both views and experience of landscape character in the solar site and National Landscape. Low voltage transmission poles are also a visual detractor within the solar site.

9.1.6 There will be large changes within the solar site to both existing landscape character and views, notably from Footpath 277/2/10.

9.1.7 There will be some large scale changes to views from within the Chilterns National Landscape where the Proposed Development will be visible in the context of the M40 and existing solar schemes.

9.1.8 Mitigation is proposed throughout the solar site including new sections of native rich hedgerows, infill planting of existing hedgerows and linear tree belts. There will also be areas of wildflower seeding and creation of 1.11 ha native woodland.

9.1.9 Once established this will create additional filtering of views in winter (screened in summer) and will increase the vegetative structure within the solar site and create permanent improvements on landscape character.

9.1.10 Effects on the PRoW network within and adjacent to the solar site have been identified as Moderate (significant) however there will be a positive indirect effect resulting from the screening of the M40 and A40 due to a combination of the proposed infrastructure and mitigation planting.

9.1.11 Visual effects for the Chilterns National Landscape have been assessed as Moderate and Major/Moderate and both will be significant. Although the proposed mitigation planting within the solar site will not create additional filtering of views, the expected continued growth of the existing, intervening vegetation will however, provide some additional filtering within a five to ten year period.

10.0 Cultural Heritage

10.1.1 Chapter 6 of the ES provides an assessment of the effects of the Proposed Development upon archaeological and cultural heritage assets. This includes direct effects resulting from the construction of the solar farm and associated infrastructure and effects upon the settings of heritage assets which may arise during operation of the Proposed Development.

10.1.2 The assessment has established that the Proposed Development has the potential to directly impact upon known remains that have been identified in the form of geophysical anomalies, some of which are thought to likely be related to the course of a Roman road and associated settlement as well as some having the potential to reflect earlier and later periods of activity.

10.1.3 The assessment has also identified the potential for other previously unidentified archaeological remains. The assessment considers this potential to be high for late

Prehistoric and Roman remains and modern agricultural remains, medium for early prehistoric remains, early medieval burials, medieval and post-medieval agriculture remains and low for other types of remains. Any early prehistoric, late prehistoric, Roman or early medieval burials surviving on the Site have the potential to be of at least Medium importance, any agricultural remains of medieval or post-medieval date would likely be considered to be of Low importance and any agricultural remains of modern date would likely be considered to be of Negligible importance. Potential direct impacts upon these assets would be of high magnitude and could potentially result in a significant effect in EIA terms.

10.1.4 It is proposed to mitigate any potential direct impacts on known and unknown archaeological remains via a programme of archaeological investigation. The exact scope of any programme of archaeological works would be defined within a Written Scheme of Investigation and agreed with the Planning Archaeologist at Oxfordshire County Council.

10.1.5 Depending on the results of the evaluation it may be necessary to designate *'archaeologically sensitive areas'* where *'no dig'* solutions could allow for the preservation 'in situ' of important buried remains. Otherwise, any excavated remains recorded during the programme of archaeological works would be *'preserved by record'*. Where avoidance of impacts is not possible the residual levels of effect would be unchanged from the assessed Construction levels of impact although excavation and recording of the assets would ensure that impacts are offset by ensuring preservation by record.

10.1.6 This assessment had also established that the operational phase of the Proposed Development would have no significant effects upon the settings of any of the designated heritage assets identified within the 2 km Study Area.

10.1.7 It is considered that there would be no cumulative effects upon any of the designated heritage assets identified within the 2 km Study Area.

10.1.8 Therefore, direct residual effects upon known and unknown heritage assets would be of Negligible level and not significant in EIA terms. Residual setting effects would be as per the effects predicted for the operational phase and not significant.

11.0 Ecology and Biodiversity

11.1.1 Chapter 7 of the ES provides an Ecological Impact Assessment (EcIA) of the Proposed Development. The assessment scope has been informed by relevant national and local planning policy and guidance, established best practice and experience, as well as via the scoping and consultation process.

11.1.2 Important ecological features that could be impacted by the scheme are identified as:

- Aston Rowant Special Area of Conservation (SAC), Site of Special Scientific Interest (SSSI), National Nature Reserve (NNR);
- Chiltern Beechwoods SAC;
- Ancient Woodland;

- Veteran ash trees;
- Hedgerows;
- Notable plant species: White helleborine and bee orchid;
- Invasive plants: Rhododendron and variegated yellow archangel;
- Great Crested Newt;
- Breeding Birds, including skylark;
- Bats;
- Badger;
- Hazel dormouse; and
- Brown hare, hedgehog, polecat, common lizard, slow worm.

11.1.3 Ecological mitigation measures have been included in the design layout (known as embedded mitigation). With the embedded mitigation in place, no significant construction effects are predicted for any of the important ecological features identified, with the exception of skylark which is proposed to be compensated for off-site.

11.1.4 The required mitigation measures will be delivered via a Construction Environmental Management Plan (CEMP) (which will include a Biosecurity and Invasive Non-native Method Statement) and a Landscape and Ecological Management Plan (LEMP). The LEMP will also include details of the monitoring and management of habitats at the solar site for the lifetime of the development, as well as a range of measures that will be employed for the benefit of biodiversity.

11.1.5 A Biodiversity Net Gain Assessment of the Proposed Development concludes that there will be more than a 171.08% increase in habitat across the site with the inclusion of wildflower meadows, additional hedgerow planting and woodland creation.

11.1.6 The loss of on-site skylark habitat will be offset by provision of new habitat nearby. The details will be included in a Skylark Compensation Plan which will be secured by a planning condition.

12.0 Land Take, Soil Quality and Agricultural Land

12.1.1 Chapter 8 of the ES evaluates the potential impacts of the Proposed Development on land take, soil quality, and agricultural land. The assessment is based on detailed field surveys, including an Agricultural Land Classification (ALC) survey and a Soil Management Plan (SMP).

12.1.2 The solar site is primarily in agricultural use, predominantly arable farming, and includes Grade 3a ("good quality") and Grade 3b ("moderate quality") land. The ALC survey found that 45.5% of the solar site consists of Grade 3a land, which is considered "best and most versatile" (BMV), while 53.2% is Grade 3b. The solar site contains no land of Grades 1 or 2.

12.1.3 The Proposed Development is designed to minimise permanent impacts on higher quality land, with fixed infrastructure (e.g. the substation) sited mainly on Grade 3b land. Soil quality across the solar site is generally good, with moderate organic matter and high nutrient levels, reflecting intensive arable cultivation.

12.1.4 The assessment concludes that the short-term, reversible effects of construction and decommissioning such as compaction or disturbance are minor and can be effectively mitigated by implementing best practices outlined in the SMP. Long-term impacts are also assessed as minor, due to the temporary nature of the Proposed Development and the restorative potential of fallowing land under solar arrays.

12.1.5 Cumulatively, the loss of agricultural land at the Site together with nearby solar developments would be offset by the temporary and reversible nature of the impacts, with potential long-term soil health benefits.

12.1.6 Overall, the assessment determines that the Proposed Development will result in a loss of approximately 0.02% of Grade 3 ALC land in SODC. It further determines that the Proposed Development aligns with local and national policies, presents no significant adverse effects on soils or agricultural land, and incorporates sufficient mitigation measures to protect soil integrity and agricultural potential throughout the project lifecycle.

13.0 Glint and Glare

13.1.1 Chapter 9 of the ES provides a comprehensive glint and glare (G&G) assessment of the Proposed Development. This assessment quantifies both the magnitude and duration of G&G on receptors (i.e., objects impacted by G&G, such as dwellings, road users and air traffic), as well as highlighting the time of the year that G&G effects may occur.

13.1.2 One out of the 40 ground-based receptors, a building located near the south-east corner of the eastern part of the solar site (OP 25), and two of the three route receptors (RRs), the M40 (RR1) and the A40 (RR3), would be subject to a minimal level of anticipated G&G. At these three receptors, G&G would be at worst predominantly low magnitude around sunset in December and January, and in the evenings of the summer months, up to 15 minutes per day. This level of impact is considered acceptable and in line with UK guidance. No impacts are predicted at any of the other assessed receptors.

13.1.3 Existing screening is present to mitigate the impacts of G&G on OP25 due a tall tree row running along the perimeter of the road (A40) adjacent to the Proposed Development. This will be further mitigated by the landscape mitigation plan proposed planting scheme which would introduce further screening planting.

13.1.4 Both RRs 1 & 3 would experience G&G on the southern portion of the road, however many existing objects (tree lines and dwellings) are situated between the impacted portion of the road. Therefore, no material impacts are envisaged.

13.1.5 Considering the comparable intensity of reflections to metallic and glass-based surfaces (e.g. windows) in worst cases, coupled with the limited duration and narrow

timeframes of G&G emissions given that these effects are only experienced during daylight hours, G&G is not envisioned to pose a significant risk to the Site. Therefore, while a solar reflection may occur occasionally at a few locations, any impact is considered to be small such that mitigation is not required.

13.1.6 It is important to note that the assessment model did not account for the presence of hedgerows and trees around some of the receptors. The assessment is therefore a 'worst-case' assessment. In real-life conditions, the G&G assessment indicates that the Proposed Development will have no impact on the receptors identified.

14.0 Benefits of the Proposed Development

14.1.1 The Proposed Development will deliver a number of key benefits.

14.1.2 It will have a total export capacity of up to 49.9 MW. Based on the average electricity consumption per household of 2.7 MWh/year (Ofgem, 2024), the Proposed Development would generate enough power to supply approximately 21,151 households.

14.1.3 The UK Government has confirmed its long-term commitment to the decarbonisation of electricity generation. In April 2021, the UK Government announced that the UK's sixth Carbon Budget will enshrine in law a new target to reduce carbon emissions by 78% (compared to 1990 levels) by 2035, the world's most ambitious climate change target. The target has now been made a legal requirement and the Proposed Development will help advance this policy objective.

14.1.4 South Oxfordshire declared a climate and ecological emergency in April 2019 where they pledged to become a carbon neutral council by 2025 and a carbon neutral district by 2030. One of the key actions to help reach this goal and tackle the climate emergency was to invest in renewable energy and other low carbon solutions and the Proposed Development would help to advance this objective.

15.0 Conclusion

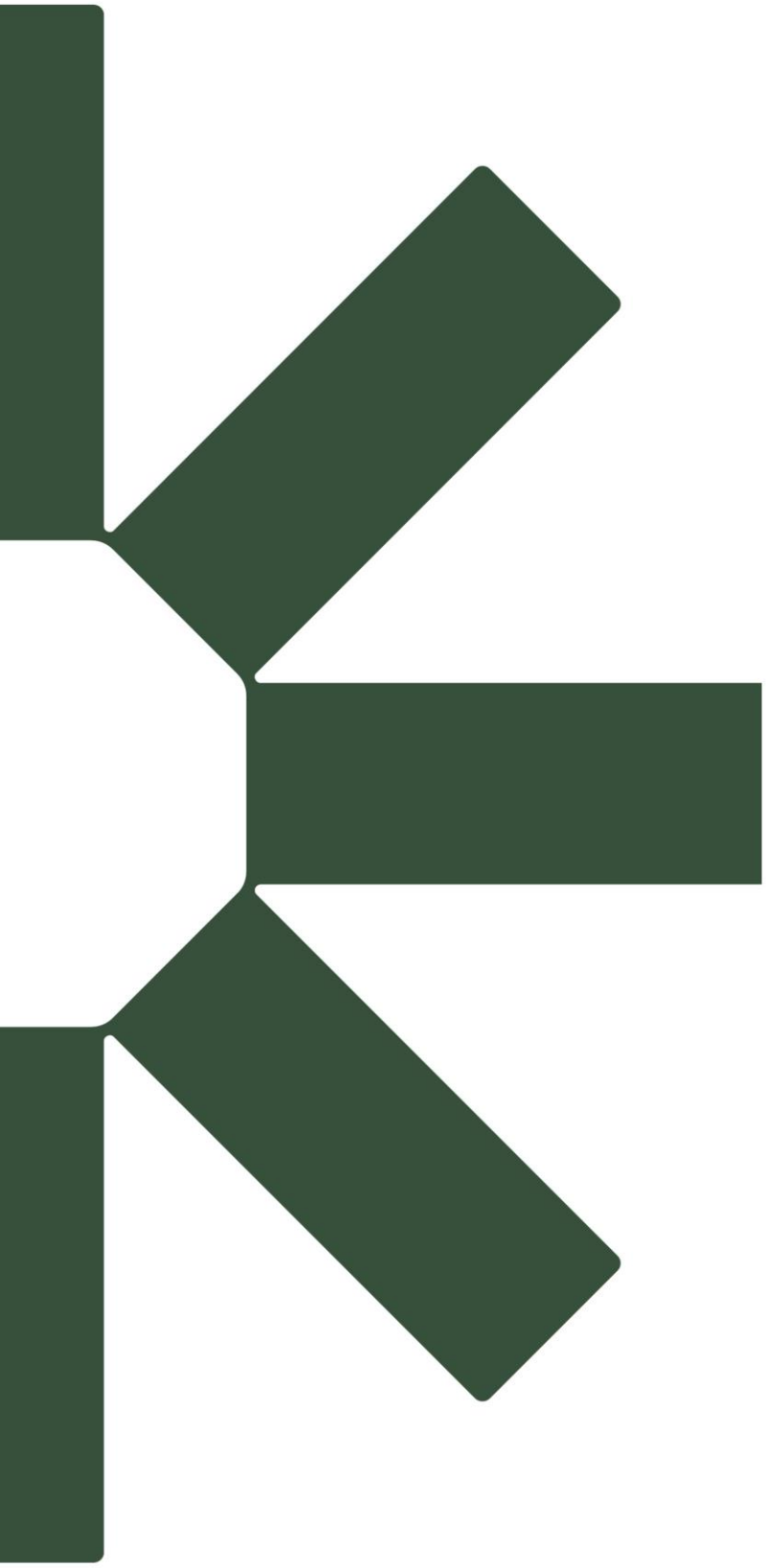
15.1.1 This Non-Technical Summary of the EIA Report provides an overview of the EIA undertaken for the Proposed Development. A schedule of environmental commitments can be found in Chapter 10 of the ES. This details the environmental mitigation and enhancement measures, summarised above, which the Applicant has committed to implementing.

15.1.2 Chapter 10 of the ES also includes summaries of the potential effects, the mitigation and enhancement measures to be implemented, and the resulting residual effects of the Proposed Development. It also provides a summary of the cumulative effects of the Proposed Development in combination with other relevant proposed, consented and operational developments in the local area.

15.1.3 The final layout has been informed by a robust EIA and lengthy design iteration process, considering potential environmental impacts and their effects, physical constraints, and health and safety considerations. The information used to inform

the design iteration process included consultation responses, baseline data and the impact assessment undertaken.

15.1.4 Overall, the Proposed Development is an appropriately designed and sensibly located solar farm which is in line with policies in the local development plan and conforms to national policy. The Proposed Development has been designed to maximise energy production, within acceptable environmental limits. It will provide a valuable contribution towards the ambitious national targets for electricity generation from renewable sources and contribute towards sustainable economic growth of the local area, and the United Kingdom as a whole.



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