

Introduction

- 1.1 West Oxfordshire District Council welcomes the opportunity to respond to this consultation on the Botley West Solar Farm proposals.
- 1.2 The district council recognises the importance of responding to consultation at this stage, as an opportunity to guide and influence the proposals prior to any application to the Secretary of State for a Development Consent Order.
- 1.3 West Oxfordshire District Council would like to take this opportunity to provide feedback on the proposed development, site location and layout, the information presented in the Preliminary Environmental Information Report (PEIR) as well as any proposed environmental enhancement and mitigation measures.
- 1.4 **WODC's response is reflective of the indicative nature of the proposals at this consultation stage and does not comprise a full detailed assessment of the local impacts of the proposed solar farm. Should the DCO application be accepted for Examination, WODC will submit a Local Impact Report (LIR) when invited to do so, which will provide a detailed assessment of the local impacts of the scheme.**
- 1.5 **WODC reserve the right to submit more detailed responses to the proposals at the appropriate stage of the DCO process as and when more details of the scheme and its impacts become available.**

Structure of Response

- 2.1 The response to the consultation is structured and ordered in the same manner as Applicant's website and document library¹. The district council's response will focus on the site location and illustrative masterplan, before dealing with each chapter of the Preliminary Environmental Information Report in turn for ease of reference.
- 2.2 This will enable the district council to focus on the nature, scale and location of the proposal, before focussing on thematic chapters and specific types of impact that are likely to arise as a result of the proposal, in order to highlight any particular areas of concern and where aspects of the proposal are more likely to be supported.
- 2.3 Specific points raised by WODC and responses to the consultation are highlighted in bold text through the chapters below.
- 2.4 The response relates to the proposal and potential significant impacts within the administrative area of West Oxfordshire District Council only.

¹ https://botleywest.co.uk/document_library.html

Phase 2 Consultation – Botley West Solar Farm

- 3.1 The proposals for the Botley West Solar Farm have been updated since the initial round of consultation that was held between November and December 2022.
- 3.2 The Applicant states that they have considered feedback during the initial consultation in order to develop proposals further, refine the site layout and to guide the environmental assessment of the proposals.
- 3.3 The Applicant is inviting feedback through this consultation on;
- Updated proposals, including site layout and cable routes
 - The information presented in the Preliminary Environmental Information Report (PEIR)
 - Proposed environmental enhancement measures including biodiversity net gain and new recreational connectivity across the site
 - Proposed mitigation measures to minimise or avoid potential impacts on the environment and local communities.
- 3.4 The Applicant in their phase 2 community consultation leaflet summarises the need case for the Botley West Solar Farm. It reflects on the effects and threats of climate change including increased temperatures and wildfires and impacts on food production and highlights the benefits of renewable energy generation in reducing carbon emissions and addressing the causes of climate change.
- 3.5 The ambitious and legally binding targets of achieving net zero carbon emissions by 2050, the governments ambitions of achieving a five-fold increase in solar energy generation capacity by 2035 and the ambitions of the Oxfordshire Energy Strategy are all cited in the Applicant's overview of the need for the Botley West Solar Farm.
- 3.6 National Policy Statement EN-I states that;
- The Secretary of State should assess all applications for development consent for the types of infrastructure covered by this NPS on the basis that the government has demonstrated that there is a need for those types of infrastructure which is urgent, as described for each of them in this Part. In addition, the Secretary of State has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008. The Secretary of State is not required to consider separately the specific contribution of any individual project to satisfying the need established in this NPS.*
- 3.7 **This consultation response does not focus on the need case for the proposed solar farm, although it is noted that the Applicant will seek to demonstrate exceptional circumstances, to justify development in the Green Belt as part of their DCO application. The need for utility scale solar generation schemes is likely to form part of the argument for justifying development in the Green Belt.**
- 3.8 National Policy Statements clearly set out a range of specific and generic impacts that should be considered when determining applications for Nationally Significant Infrastructure Projects and it is these key areas that this representation will focus.
- 3.9 The applicant confirms that they have secured a grid connection with National Grid, to provide 840MW of energy to the Grid.

The Site

- 3.10 The site is divided into three distinct areas, the Northern Site, the Central Site and the Southern Site.
- 3.11 The proposed development site covers an area of 1,300 hectares and the proposed area of installed panels (excluding internal roads and support areas) is approximately 890 ha. This is a reduction in the total site area from the initial consultation which covered a total area of 1,400 hectares with 1,000 hectares of panels and other types of infrastructure.
- 3.12 **As proposed, and if approved, the Botley West Solar Farm would be the largest ground mounted solar farm in the UK. In terms of ground coverage, the installed area of solar panels would be broadly equivalent to the size of Carterton and Brize Norton Air Base combined.**
- 3.13 The Applicant seeks consent to install and operate approximately 840MWe of solar generation development in parts of West Oxfordshire District Council, Cherwell District Council and Vale of White Horse District Council.
- 3.14 The vast majority of the proposed development site is located in West Oxfordshire district.

- 4.1 The applicant's draft masterplan illustrates the scale of the proposed solar farm development across three distinct areas, the northern section, central section and southern section.
- 4.2 The masterplan documents show the location of existing landscape elements such as hedgerows and woodlands, as well as indicative locations for proposed landscape and infrastructure elements such as inverters and sub stations, additional woodland planting and skylark plots.
- 4.3 **The masterplan documents are treated as indicative at this stage, recognising that the design process for the proposed solar farm is intended to be iterative, with ongoing environmental assessment and stakeholder engagement being used to refine the detailed design of the proposed solar farm.**
- 4.4 Applying "good design" to energy projects should produce sustainable infrastructure sensitive to place, including impacts on heritage, efficient in the use of natural resources, including land-use, and energy used in their construction and operation.
- 4.5 **WODC welcome the opportunity to respond to the applicant's proposed masterplan, recognising that the pre-application stage of the DCO process provides the best opportunity to influence the proposals before they are submitted for examination. Consideration will be given to whether good design principles have been applied to the refinement of the proposed scheme.**
- 4.6 The proposed masterplan provides a useful mechanism through which WODC can respond to the consultation, highlighting potential areas of concern as well potential areas of refinement and enhancement to mitigate potential impacts on local communities and environmental and heritage assets.
- 4.7 Further comment is provided in relation to the thematic elements of the PEIR as appropriate.

Northern Area – Wootton, Tackley and Woodstock

- 4.8 The masterplan for the northern area shows an extensive and relatively dense configuration of solar panels occupying elevated land between the settlements of Wootton to the west, Tackley to the east and Woodstock to the south west.
- 4.9 A description of the northern area is provided within the existing baseline chapter of the PEIR, WODC is broadly content with the description of the baseline characteristics of this location in that it is relatively flat, relatively unconstrained by statutory ecological designations, is an area at low risk from fluvial flooding and that there areas of best and most versatile agricultural land present within the development area.
- 4.10 Significant to the baseline assessment of the northern area are the presence of historical features within and in close proximity to the site, particularly the presence of a Scheduled Monument adjacent to Sansom's Cottages which the northern development area largely encloses.
- 4.11 There is an extensive public right of way (PRoW) network within and around this Northern Site, most prominently the Oxfordshire Way, which crosses the Site on an east-west bearing. The 416/11/20 bridleway also runs in a north-south bearing through the Site for almost its entire length.

- 4.12 Although development is excluded from the Scheduled Monument and mitigation measures have been proposed to accommodate development in areas of archaeological interest, additional buffering in areas affecting the setting of the Scheduled Monument, Listed Buildings and Akeman Street may be beneficial. Land slopes down to the south from bridleway 416/21/10 east of Milford Bridge to Akeman Street making the landscape more prominent and open in this location. Limiting development in this area could further reduce the magnitude and significance of impacts against a range of sensitive receptors in this location.
- 4.13 Development locations to the north east of Woodstock are predominantly located within Cherwell district. It is noted that the applicant has identified the potential for significant negative impacts arising from development east of Banbury Road, primarily related to the scale of the proposed substation and proximity to the public rights of way network. From a West Oxfordshire perspective, development in this location would be sufficiently distant and screened to avoid significant detrimental impacts on heritage assets, although there would be significant negative impacts on sensitive receptors such as users of the prowl network.
- 4.14 It is noted that there are residential properties in close proximity to the project area in the Northern Site. Consideration should be given as to whether a minimum buffer distance between development and residential properties would be appropriate to minimise impacts on residents.

Central Area – Bladon, Church Hanborough, Eynsham, Cassington

- 4.15 The central area is the largest of the three proposed development areas comprising a total land area of approximately 870ha. A description of the baseline characteristics of the Central Area is provided within the Existing Baseline Chapter of the PEIR.
- 4.16 WODC are largely content with the high-level summary of the baseline conditions for the Central Area, including recognition of the close proximity of settlements to the site boundary. There are significant areas of flood risk in the Central Area related to the River Evenlode, although the majority of the area is located within flood zone I and is at low risk of fluvial flooding. There are no statutory ecological designations within the site, but there are three areas of Ancient Woodland contained within the site area. There are concentrations of Listed Buildings within and around the site boundary, particularly focused in nearby settlements and their associated Conservation Areas. Parts of the Central Area are located in close proximity to the Blenheim Palace World Heritage Site and there is a Scheduled Monument located at Bladon Heath.
- 4.17 Most of the Central Area is located within the Oxford Green Belt with only a small area to the west of Lower Road outside of the Green Belt. The predominant land use in the area is arable farming and a significant area of the Central Area is classed as Best and Most Versatile Agricultural Land. The Central Area spans two Landscape Character Areas, the Eynsham Vale and the Eastern Parks and Valleys. Although not necessarily reflected in the applicant's baseline assessment, much of the landscape is characterised by rolling farmland, some of which has moderate intervisibility, but much of which is particularly open and visually sensitive.
- 4.18 WODC regard the Central Area as being particularly sensitive to new development with potential for impacts on landscape, heritage, ecology, Green Belt, amenity and agricultural land. There is also potential for cumulative impacts in combination with other strategic development in the area such as that proposed at Salt Cross Garden Village.

- 4.19 There are other plans and strategies that are relevant to the area including the Wychwood Forest Project, Blenheim World Heritage Site Management Plan and Evenlode Catchment Management Plan and so consideration should be given as to whether development in this area is consistent with their objectives, particularly those for landscape and ecological protection and enhancement.
- 4.20 WODC suggest that removal of development areas from the visually exposed and prominent valley sides to the west of Lower Road and valley sides of the River Evenlode could minimise negative impacts of the proposal. This will reduce potential for negative landscape character impacts by restricting development in visually prominent and exposed locations and minimise impacts on the setting of Church Hanborough Conservation Area.
- 4.21 WODC also suggested that development be restricted to the north of Cassington. Although the masterplan indicates that development would be set back from the edge of the settlement in this location, land rises steeply to the north of the settlement making any development in this location prominent and visually exposed. This area is also within the Green Belt, which performs particularly well in this location in terms of protecting the historic character of settlements and safeguarding the countryside from encroachment.
- 4.22 It is noted from the masterplan that there is a proposed buffer zone to the south of Bladon to mitigate against potential landscape and visual impacts. There are a number of key sensitivities in this location including proximity of residential properties, proximity to the Bladon Conservation Area and the setting of the Blenheim World Heritage Site. It is considered that the proposed buffer area should be substantially increased to minimise impacts on sensitive receptors in this location.
- 4.23 Proposed buffers adjacent to Ancient Woodland should be increased in this area to reduce impacts on the PROW network and provide opportunities for further woodland creation. The applicant is proposing a 15m buffer around Ancient Woodlands in accordance with Natural England guidance. It is considered that proposed buffer distances are designed to protect the root structure of trees rather than protecting the visual importance and sensitivity in the landscape of those woodlands and presenting real enhancement opportunities. Opportunities should be sought to increase woodland cover in the area where possible. There are two public rights of way along the eastern side of Bladon Heath. Stepping development away from these would mitigate the impacts on sensitive users of the public rights of way network and reduce the corridor effect of moving through large areas of solar panels over large distances.
- 4.24 Restricting development in proximity to public rights of way that connect historic settlements and long distance trails such as the Green Belt Way and Wychwood Way would mitigate impacts on the setting of landscape and heritage assets and visual impacts on sensitive receptors such as users of public rights of way. The proposed development includes the erection of fencing adjacent to all public rights of way where panels are situated, and it is considered that this may have amenity impacts on people no longer attracted to using the public rights of way network for recreation.

Southern Area

- 4.25 The majority of the Southern Area is located in the administrative area of Vale of White Horse District Council.
- 4.26 With regard to development in West Oxfordshire, the masterplan shows a number of cable route options linking across the river Thames between the Central and Southern Areas.

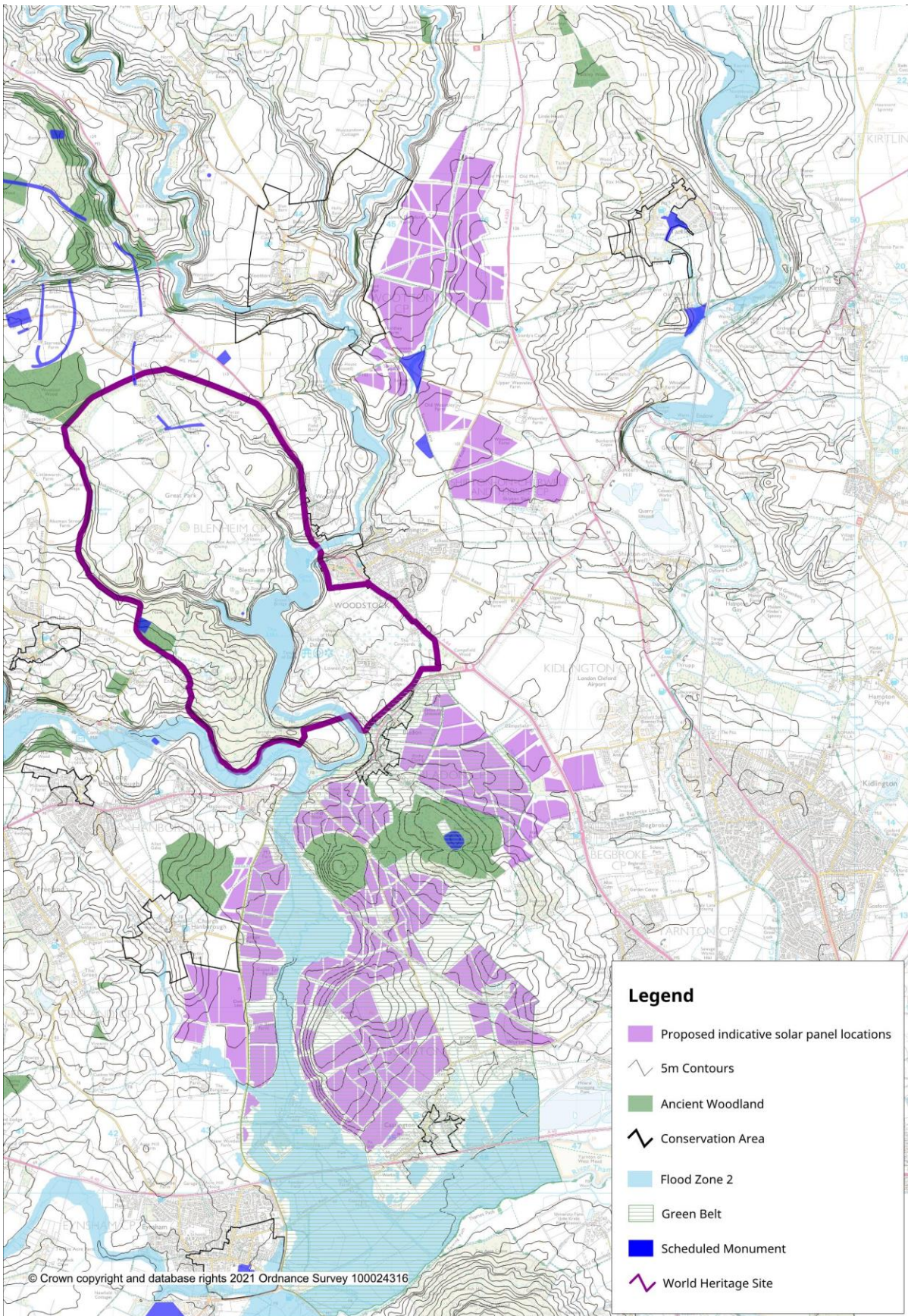
4.27 A key area of concern here is the impact of the Local Wildlife Site at Long Mead Meadow. The applicant's assessment should ensure that any proposed routing of the cable corridor or method of trenching or horizontal directional drilling does not undermine the integrity of rare habitats within the Thames valley.

Summary of Masterplan comments

4.28 Further consideration of the constraints and opportunities and site topography in relation to the project area, should guide further revisions to the design and layout of the proposed development. Such revisions could result in a reduced scale of project, but would help to minimise the magnitude and significance of effects on a sensitive environment. The fact that the cable run routes appear to be flexible means that less sensitive sites could potentially be swapped in to compensate for reduced development in sensitive areas.

4.29 Map I below illustrates a number of key constraints within and in close proximity to the Applicant's proposed areas for solar panel development. Although the design and layout of the proposed solar farm has been shaped by the environmental sensitivities and the topography of the land to date, it is considered that there is still potential for significant adverse impacts as a result of the development

Map 1 - Constraints and Opportunities in proximity to indicative solar development locations



Thematic Chapters

- 4.30 The representations set out below relate to the thematic chapters of the PEIR and highlight areas in which additional assessment is likely to be required to support the Environmental Assessment and enable a full detailed assessment of the likely significant impacts of the proposal both positive and negative.
- 4.31 Extracts from the relevant National Policy Statements are included for context and to help frame the response.
- 4.32 **It is apparent that the assessment for certain thematic chapters of the PEIR is incomplete and it is recognised that more assessment needs to be undertaken to underpin the Environmental Statement and fully assess to impacts of the solar farm proposal.**
- 4.33 **This indicates that the proposed scheme design and masterplan at this stage have been led primarily by land availability and proximity to the grid connection point, rather than a comprehensive assessment of environmental characteristics and constraints to guide a development that is well designed and sensitive to place.**

Historic Environment

- 4.34 The historic environment includes all aspects of the environment resulting from the interaction between people and places through time, including all surviving physical remains of past human activity, whether visible, buried or submerged, landscaped and planted or managed flora. Those elements of the historic environment that hold value to this and future generations because of their historic, archaeological, architectural or artistic interest are called "heritage assets". A heritage asset may be any building, monument, site, place, area or landscape, or any combination of these. The sum of the heritage interests that a heritage asset holds is referred to as its significance.
- 4.35 Some heritage assets have a level of significance that justifies official designation. Categories of designated heritage assets are: a World Heritage Site; Scheduled Monument; Listed Building; Registered Park and Garden; Registered Battlefield and Conservation Area.
- 4.36 **There are a number a number of heritage assets within and in close proximity to the proposed site boundary, as confirmed by chapter 7 of the PEIR. It is considered that the desk based assessment and field surveys undertaken by the applicant provide an adequate overview of the baseline heritage conditions as they relate to the proposed development area.**
- 4.37 Upon submission of the Environmental Statement, the applicant should provide a description of the significance of the heritage assets affected by the proposed development and the contribution of their setting to that significance. The level of detail should be proportionate to the importance of the heritage assets and no more than is sufficient to understand the potential impact of the proposal on the significance of the heritage asset. As a minimum the applicant should have consulted the relevant Historic Environment Record.
- 4.38 **It is noted that there is further assessment to be undertaken in this regard, to fully understand the impact on the setting and significance of heritage assets.**
- 4.39 **Key to this will be the impact on the Blenheim Palace World Heritage Site. The Blenheim Palace World Heritage is an internationally significant heritage asset and makes a significant contribution to the**

historic character and cultural heritage of West Oxfordshire as well as being of key importance to the local economy.

- 4.40 It is noted that the proposed masterplan has taken care to exclude development from key view points into and out of the World Heritage Site and that a heritage impact assessment will be prepared to provide detail of the potential significant effects of the World Heritage Site.
- 4.41 **Paragraph 7.9.4.1 of the PEIR recognises that the Blenheim Palace WHS does not have a formally identified buffer zone, but as with any heritage asset it has a setting and changes within that setting may harm the significance of the asset.**
- 4.42 It should be noted that the reason for Blenheim Palace WHS not having a formally identified buffer zone is that the WHS is already provided with a high degree of protection for the protection of the WHS Outstanding Universal Value (OUV). Given the strong statutory and local plan protections for heritage assets, the presence and extent of the Oxford Green Belt and natural environment features such as the Cotswold AONB, coupled with the robust policies set out in the West Oxfordshire Local Plan 2031, an additional level of designated protection such as a buffer zone is regarded by the as unnecessary.
- 4.43 **Regard should therefore be had to whether development proposals within the landscape surrounding the WHS and whether development in the Green Belt in particular would undermine the additional policy protection provided for the setting of the Blenheim Palace WHS.**
- 4.44 Any harmful impact on the significance of a designated heritage asset should be weighed against the public benefit of development, recognising that the greater the harm to the significance of the heritage asset the greater the justification will be needed for any loss.
- 4.45 The updated proposals for the Botley West Solar Farm provide a range of mitigation measures to minimise impacts on designated and non designated heritage assets in proximity to the site. These measures include the avoidance and exclusion of heritage assets from the permanent project developable footprint and the adoption of no-dig approaches to development in areas of archaeological sensitivity.
- 4.46 The preparation of a Landscape Management Plan will include details of mitigation planting around the development site, including the number, location, species and details of management and maintenance of planting. The Applicant explains that where practical, landscape mitigation planting will be established as early as reasonably practicable in the construction phase.
- 4.47 **WODC cannot comment on the suitability and effectiveness of proposed mitigation planting at this stage and will await details of the Outline Landscape and Ecology Management Plan. The applicant should have regard to comments made on the proposed masterplan, to identify where mitigation and enhancement measures should be focused, to minimise negative impact on the historic environment and heritage assets.**
- 4.48 **It is recognised that further archaeological assessment is required to assess the required mitigation of impacts on buried archaeological remains. It is the view of the council that in order to minimise harm to archaeological remains, areas should be avoided and sufficiently buffered.**
- 4.49 No further mitigation is proposed to address cumulative impacts of the proposal with other planned developments in the area. The applicant considers that refinements to the project design will enable

the magnitude of impacts to be reduced and the consequent level of effect to also be reduced to a point where it is no longer significant.

- 4.50 **WODC consider that the proposed mitigation measures may not be sufficient to adequately address the impacts on the significance of heritage assets.**
- 4.51 **Although development has been removed from the conservation areas at Bladon and Church Hanborough, it is considered that there is likely to be a residual impact on heritage assets in these locations, particularly on the setting of the conservation areas and listed buildings.**
- 4.52 **In terms of the Church Hanborough Area, the proposed masterplan includes opportunities for enhancement within the Conservation Area, although it is not clear what the nature of the enhancements might be at this stage. The applicant proposes a permissive path to the south of the Conservation Area which will improve connectivity through the countryside and linking to existing public rights of way to the east of Lower Road. As such, according to the proposed masterplan, it will be possible to move between the Conservation Areas at Church Hanborough and Cassington through an almost unbroken arrangement of panels.**
- 4.53 **Regard should be had to the impact of the setting of the conservation areas and Grade I Listed churches at both Cassington and Church Hanborough as a result of the scale and extent of the proposed development within the Central Area.**
- 4.54 **The PEIR Non Technical Summary (Para 6.2.15) confirms that the effects on designated heritage assets as a result of change within their setting have been assessed as not significant. These effects are fully reversible in that they would cease following decommissioning of the Project.**
- 4.55 **WODC is concerned that there will be negative impacts on the setting of Conservation Areas and Listed Buildings at Church Hanborough and Cassington Consideration should be given to how these impacts can be minimised or effectively mitigated, having regard to the comments on the masterplan set out above.**

Landscape and Visual Resources

- 4.56 **The landscape and visual effects of energy projects will vary on a case by case basis according to the type of development, its location and the landscape setting of the proposed development.**
- 4.57 **WODC wish to emphasise that due to the scale of the proposal (890 Ha of development) the nature of the proposal (a Nationally Significant solar energy generating station) the sensitivity of the landscape (attractive, largely unspoilt rural landscape) and the extent of the proposed development within the Green Belt, that landscape and visual impacts are key to the assessment of the suitability of this proposal.**
- 4.58 **The applicant should carry out a landscape and visual assessment and report it in the Environmental Statement. The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project.**
- 4.59 **It is recognised that the applicant has undertaken some landscape and visual impact assessment to date, but an assessment has not been undertaken for each of the representative viewpoints.**

Photomontages and visualisations are only available for 18 of the 57 representative viewpoints at this time, which presents a degree of uncertainty in assessing the landscape and visual impacts, both positive and negative as a result of development.

- 4.60 The Landscape and Visual Assessment baseline identified by the applicant for the development site comprises two distinct but connected parts –
- landscape character baseline, including international, national and local designated landscapes
 - visual baseline.
- 4.61 The LVIA makes no reference to tranquillity of the landscape. WODC feel that this should be a consideration in assessing the impacts of the proposal on the landscape character, due to the noise generating uses proposed within the development site.
- 4.62 It is considered that the Landscape and Visual Resources chapter of the PEIR identifies the relevant landscape character evidence relevant to establishing the baseline landscape character for the development site. Appendix 8.1 of the PEIR provides comprehensive details of the relevant landscape character areas and types at national, regional and local level that are relevant to the project area.
- 4.63 It confirms that the landscape character of West Oxfordshire is generally high quality, unspoilt attractive rural landscapes with some localised and variations in quality and condition.
- 4.64 Appendix 8.2 of the PEIR sets out factors relating to landscape quality, including a range of factors that can be considered when identifying landscape value. It appears that there are omissions from this assessment that may contribute to the understanding of landscape quality across the development site, particularly in terms of cultural heritage. Regard should be had to the following plans and evidence in further refining development proposals;
- There is a draft Nature Recovery Network for Oxfordshire² which covers significant areas of the project area. Opportunities should be sought to improve ecological connectivity within the Nature Recovery Network and avoid fragmentation of habitats.
 - There is a Catchment Management Plan in place for the River Evenlode³. Consideration should be given to how compatible the development plans are with the vision and objectives of the Evenlode Catchment Management Plan
 - There is a comprehensive assessment of natural capital and ecosystem service provision available for the whole project site. Regard should be had to how habitats perform in the provision of ecosystem services within the development site.
 - The Wychwood Project Area covers a significant area of the site. Regard should be had to the aims of the Wychwood Project area, particularly in terms of restoring the landscape character and mix of habitats associated with the Royal Hunting Forest of Wychwood.
 - The Bladon Conservation Area is covered by a Conservation Area Character Appraisal which identifies important views out of the village to the south towards the development site.
 - Blenheim WHS Management Plan 2017 – Appendix 3 : Setting Study – Provides useful information on the setting of Blenheim Palace WHS, key views into and out of the park and potential forces for change.

² <https://www.wildoxfordshire.org.uk/oxfordshires-nature/oxfordshires-nature-recovery-network>

³ https://assets-global.website-files.com/62602eef03c83769e0539df4/63d2d4199ff6fa5dba861fb5_river-evenlode-smarter-water-catchment-plan%202021.pdf

- 4.65 Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.
- 4.66 **WODC considers that much of the proposed development area is within a highly valued and high quality landscape with limited capacity to accommodate significant change, particularly at the scale currently proposed. The council have suggested measures to reduce the impacts and mitigate the potential harms of the proposal. Further detailed assessment of a refined project design will be necessary to understand whether the benefits of utility scale solar development in West Oxfordshire would outweigh the harms.**
- 4.67 A conservation and landscape management plan will be required as part of any development consent order, to ensure that landscape enhancement and mitigation measures are managed over the lifetime of the project to ensure they achieve desired outcomes.
- 4.68 **The Non Technical Summary of the PEIR (Para 6.3.11) confirms that a number of potential impacts upon landscape and visual resources associated with the construction, operational and maintenance, and decommissioning phases of the Project, were identified. It is considered that in terms of landscape, effects would be limited.**
- 4.69 The applicant asserts that when considering the landscape character of the Project site and landscape character areas / types of the wider study area, significant landscape characterisation effects are unlikely.
- 4.70 **WODC questions this assessment and considers that the project would result in significant landscape characterisation effects, both as a result of the project itself and cumulatively with other proposed developments in proximity to the site.**

Ecology and Nature Conservation

- 4.71 The Applicant's Environmental Statement should clearly set out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity. It is recognised that the PEIR only provides the preliminary findings of assessments undertaken to date and that more detailed information will be made available as part of the Environmental Statement when the DCO application is submitted.
- 4.72 **It is considered that the assessment of baseline characteristics presented in the PEIR is adequate, in terms of identifying designated sites for ecological and geological conservation importance. The PEIR also includes comprehensive assessment of protected habitats and species across the project area. It is considered that the baseline assessment and identification of relevant data sources and survey findings is acceptable in terms of defining the baseline, although additional assessment will be required to support future biodiversity net gain calculations.**

- 4.73 There are questions about the proposed mitigation and enhancement measures where they relate to ecology and nature conservation however. It is not possible at this stage to take a fully informed view on the magnitude and significance of impacts on ecology and nature conservation without more detail on what is proposed in terms of the design of the project and details on implementation and management of environmental enhancements.
- 4.74 In terms of the impact on ground nesting and wintering bird assemblages, the baseline assessment identifies a number of protected species to be present some of conservation importance. The Applicant's masterplan indicates a substantial number of skylark plots across the development area, to mitigate against the loss of accessible habitat. It is unknown at this stage whether such measures will be adequate to compensate for the loss of habitat.
- 4.75 The Applicant's masterplan indicates that statutory designated ecological sites will be excluded from the development, but it is considered that habitats and species will be affected by development, particularly at the scale proposed. The applicant has stated an intention to achieve at least 70% biodiversity net gain across the project, but full details as to how this will be achieved will be reserved for the Environmental Statement. Such significant gains in biodiversity would be supported, particularly where they would contribute to meeting nature recovery objectives and build resilience to climate change, but it is not possible to comment on the suitability of measures proposed at this stage, due to the lack of information provided.
- 4.76 It is considered that buffers to ancient woodlands could be increased and opportunities for further woodland enhancement could be identified, in order to increase habitat connectivity within the development site.
- 4.77 It is anticipated that converting intensive agricultural land to other habitat may be a significant contributor to achieving 70% BNG across the site. Any calculations would need to be demonstrated through completion of the DEFRA Metric.
- 4.78 Development proposals provide many opportunities for the inclusion of beneficial biodiversity or geological features as part of good design. Such opportunities should be maximised in and around developments, using requirements or planning obligations where appropriate.

Hydrology and Flood Risk

- 4.79 Applications for energy projects of 1 hectare or greater in Flood Zone 1 and all proposals for energy projects located in Flood Zones 2 and 3 should be accompanied by a flood risk assessment (FRA). This should identify and assess the risks of all forms of flooding to and from the project and demonstrate how these flood risks will be managed, taking climate change into account.
- 4.80 A flood risk assessment for the Project area is provided at Appendix 10.1 of the PEIR, which confirms that development within each of the three development areas would meet the requirements of the National Policy Statements and National Planning Policy Framework.
- 4.81 The flood risk assessment includes a drainage strategy for the land parcels that would be occupied by solar panels following development. There is recognition that poor design and maintenance may result in increases to peak discharge and additional requirements for storm water management.
- 4.82 Potential significant effects of the project as summarised in the Applicant's non technical summary include increased flood risk, contamination of surface waters and damage to field drainage, water supply and drainage infrastructure. Taking into account mitigation measures the Applicant suggests

that no significant effects are likely to occur with respect to hydrology and flood risk during the construction, operation and decommissioning phases of the project.

- 4.83 **It is recognised however that the location and design of many of the infrastructure features of the project including the Primary Sub Station, Power Converter Stations and Transformers are yet to be determined and is not available to inform this stage of the PEIR.**
- 4.84 **It is not possible to comment of the suitability and effectiveness of mitigation measures at this stage while the detailed design and layout of the project are yet to be finalised.**
- 4.85 **Areas of potential concern and likely necessary locations for flood risk mitigation will be the foot of south facing slopes where solar panels are orientated downhill. The area of land to the north of Cassington is an area of particular focus where surface water impacts may need to be mitigated and managed.**
- 4.86 **Also within the Evenlode Valley where the Catchment Management Plan seeks to reconnect the river channel with the flood plain, development proposals should not undermine such plans.**

Ground Conditions

- 4.87 Applicants should safeguard any mineral resources on the proposed site as far as possible, taking into account the long-term potential of the land use after any future decommissioning has taken place.
- 4.88 Where a proposed development has an impact upon a Mineral Safeguarding Area (MSA), it should be ensured that appropriate mitigation measures have been put in place to safeguard mineral resources.
- 4.89 The Applicant's ground conditions survey and assessment in the PEIR considers the potential impacts of the Project on the underlying aquifers, surface watercourses, human health (construction workers and future site users) land instability and mineral resources. The significance of effect ranges from temporary minor/moderate adverse effects with regard to off-site human health, to no change during the operational phase. The impacts are not considered significant.
- 4.90 **WODC agree with the scope and extent of the PEIR and support the ongoing consultation with Oxfordshire County Council as the Minerals and Waste Authority, to assess possible impacts on sterilisation of mineral reserves as a result of the project.**

Traffic and Transport

- 4.91 The transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects. Environmental impacts may result particularly from increases in noise and emissions from road transport. Disturbance caused by traffic and abnormal loads generated during the construction phase will depend on the scale and type of the proposal.
- 4.92 If a project is likely to have significant transport implications, the applicant's Environmental Statement should include a transport assessment. Applicants should consult the Highways Authorities as appropriate on the assessment and mitigation.
- 4.93 Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed

measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.

- 4.94 A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and these impacts should be mitigated, including during the construction phase of the development.
- 4.95 **The Applicant has obtained base traffic flow data from Oxfordshire County Council and the Department for Transport for the project area and WODC consider this to be representative of current conditions. Construction traffic flows have been estimated using reasonable assumptions and are considered to be suitable for assessment purposes.**
- 4.96 WODC are satisfied with the assessment of baseline traffic conditions for the project site, although it should be highlighted that the AADT data presented in table 12.11 of the PEIR appears to be quite dated, covering the period 2018/19. The applicant should ensure ongoing consultation with Oxfordshire County Council in the preparation of the Construction Traffic Management Plan to ensure that all relevant data is accurate and up to date.
- 4.97 WODC agree that the construction phase of the project is likely to generate the greatest number of vehicle movements.
- 4.98 An Outline Construction Traffic Management Plan (CTMP) will be submitted in support of the application for development consent. A full cumulative assessment of traffic and transport impacts of the project along with other developments in the area will be set out in the ES.
- 4.99 **WODC look to Oxfordshire County Council as local Highway Authority for comments on the PEIR. WODC recognise that there will be traffic increases during the construction phase of the project and that cable trenching in the highway could cause traffic delays. The impacts of increased traffic movements and delays caused by trenching within the highway should be mitigated as far as possible, by restricting peak time HGV movement and concentrating trenching within highway verges where possible.**

Noise and Vibration

- 4.100 WODC agree with the assessment of the baseline noise environment for the project area. The long-term sound survey highlights that much of the area surrounding the Project site has a fairly low existing noise climate due to the rural nature of certain areas. The dominant sources of noise were noted to be traffic on local highway networks.
- 4.101 The Applicant's assessment considers noise and vibration effects due to all construction activities along the cable corridor during construction and decommissioning phases as well as noise effects due to the plant and equipment associated with the project site such as noise effects from the Power Converter Stations (PCS) and noise effects from the secondary, main and National Grid substations.
- 4.102 The Project provides for a number of noise and vibration mitigation measures which will help avoid, reduce or offset likely adverse impacts and include the orientating and positioning substations to minimise noise levels at nearby receptors. Quieter equipment will be selected, where available and practicable, and mitigation measures such as acoustic barriers and enclosures will be specified where necessary.
- 4.103 **It is noted that the maximum design parameters for the power converter stations (Table 6.1: Solar design parameters) indicate a noise level of 67db at 10m distance.**

- 4.104 The indicative masterplan shows the location of 156 power converter stations around the site. PCS have the potential to generate significant noise levels (98db indicated at table 1.2 of Appendix 13.3 of PEIR) during the operational phase of the project. This is an area of concern for WODC as it is considered that the number of proposed PCS required and the likely close proximity to sensitive receptors mean that noise impacts are unlikely to be totally mitigated. The volume and frequency of noise generated by PCS will result in likely significant detrimental impacts on human health, amenity use of the countryside, tranquillity of the countryside and wildlife over a wide area.
- 4.105 It is noted that an Operational Noise Management Plan (ONMP) will be prepared to identify the noise limits for the operation of the Project and the measures for how these limits would be monitored. It will be informed by a full assessment of operational noise to be undertaken once the plant design is complete. WODC cannot comment further at this stage.

Climate Change

- 4.106 Climate change is likely to mean that the UK will experience hotter, drier summers and warmer, wetter winters. There is a likelihood of increased flooding, drought, heatwaves and intense rainfall events, as well as rising sea levels. Adaptation is therefore necessary to deal with the potential impacts of these changes that are already happening.
- 4.107 The Examining Authority should be satisfied that applicants for new energy infrastructure have taken climate change into account to ensure they have identified appropriate mitigation or adaptation measures. This should cover the estimated lifetime of the new infrastructure.
- 4.108 The applicant states that the purpose of the Project is to provide a source of renewable energy and that the construction-stage effects in terms of carbon emissions must be considered together with the long-term operational effect in order to determine the overall lifetime effect of the Project.
- 4.109 The majority of emissions arising from the project occur at Life Cycle Assessment stages A1-3. These stages cover the extraction of resources through to the manufacture of the solar panels.
- 4.110 At this stage of planning and design, no embedded mitigation to reduce GHG emissions at the manufacturing stage of the PV cells has been specified, so it cannot be concluded that the GHG impacts at the construction stage are in keeping with current and emerging local and national climate policy regarding the transition towards net zero.
- 4.111 The whole-life impact of the Project has been determined to have a beneficial effect that is significant when comparing to current UK electricity grid factors. Although a significant initial carbon cost of manufacturing and installation is incurred, by achieving a carbon payback period of 10 years (earliest estimated payback period) and providing subsequent net negative emissions in operation, the Project meets policy goals for the rate of carbon reduction in the context of UK carbon budgets.
- 4.112 WODC have no comments to make on this assessment at this stage.

Socio Economics

- 4.113 Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES.
- 4.114 This assessment should consider all relevant socio-economic impacts, which may include the creation of jobs and training opportunities, effects on tourism and the cumulative effects of other developments taking place.
- 4.115 **The effects associated with providing employment opportunities as part of the Project have been assessed during all phases of development (construction, operation and maintenance and decommissioning). The employment generation associated with each phase of works has been independently assessed with all phases considered to have a beneficial impact.**
- 4.116 **All other potential effects associated with key receptors were assessed as being not significant with the exception of the potential impact on the visitor economy during construction which has been assessed as adverse. This is, however, based on the information currently available and this aspect will be further assessed in the ES based on additional survey work which is currently being carried out.**
- 4.117 **WODC has no further comments to make on the socio-economic assessment at this stage.**

Human Health

- 4.118 Energy production has the potential to impact on the health and well-being of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the production, distribution and use of energy may have negative impacts on some people's health.
- 4.119 The Environmental Statement should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the cumulative impact on health should be considered.
- 4.120 The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests.
- 4.121 New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.
- 4.122 Data was gathered from publicly available public health evidence sources to inform the PEIR. This data shows that overall, physical health indicators (e.g. heart health, respiratory health), lifestyle indicators (e.g. diet, childhood obesity) and socioeconomic indicators (e.g. income, education levels, employment) perform better in the local study area compared to national averages.
- 4.123 However, some indicators such as certain mental health indicators (e.g. depression), mortality related to air pollution, levels of physical activity and adult obesity perform worse than national levels. The health assessment has regard to such higher sensitivity.
- 4.124 A number of potential impacts on human health associated with the construction, operational and maintenance, and decommissioning phases of the Project, were identified. These included access to open space, leisure and play; transport modes, access and connections; community identity, culture

and resilience; education and employment opportunities; environmental conditions; climate change; and wider societal infrastructure. With the measures adopted as part of the Project in place, the majority of these impacts result in adverse effects but are not significant. There are also several beneficial effects on human health that have been identified.

- 4.125 **WODC support measures to improve the health and well being of communities including increasing the public rights of way network within and around the development site.**

Agricultural Land and Public Rights of Way

- 4.126 Applicants should seek to minimise impacts on the best and most versatile agricultural land and preferably use land in areas of poorer quality (grades 3b, 4 and 5) except where this would be inconsistent with other sustainability considerations.
- 4.127 Applicants should also identify any effects and seek to minimise impacts on soil quality taking into account any mitigation measures proposed.
- 4.128 Baseline agricultural land use and public rights of way were established using a detailed review of existing studies and datasets. In addition, soil surveys were undertaken to determine the quality and characteristics of agricultural land within the Project site. However, some areas within the Project site were not subject to soil surveys, due to dry soils or crop conditions.
- 4.129 The soil surveys determined that the Project site predominantly comprised Agricultural Land Classification (ALC) Grade 3a (good quality) and Grade 3b (lower quality) agricultural land and four land holdings. ALC Grade 3a agricultural land is categorised as best and most versatile land, and considered the most capable of delivering crops for food and non-food uses.
- 4.130 Desk based analysis identified the following public rights of way, which intersect the Project site: National Cycle Route 5; Oxford Greenbelt Way Long Distance Path; Shakespeare Way Long Distance Path; and several public footpaths and bridleways.
- 4.131 A Public Rights of Way Management Plan (PRoWMP) will be developed in accordance with the Outline PRoWMP, which is to be submitted alongside the ES. The Outline PRoWMP will include measures to avoid severance and maintain access to affected public rights of way and other promoted routes during construction of the Project.
- 4.132 A CoCP will be developed in accordance with the Outline CoCP, which is to be submitted alongside the ES. The Outline CoCP will include measures to maintain access to affected land holdings during construction of the Project and ensure that affected public rights of way are reinstated postconstruction.
- 4.133 A Soil Management Plan (SMP) will be developed in accordance with the Outline SMP, which is to be submitted alongside the ES. The Outline SMP will contain measures to maintain the quality of affected agricultural soils, including the requirement to reinstate land (as near as possible) to its former condition post-construction.
- 4.134 **The Applicant identifies a range of significant cumulative effects that are likely to occur with respect to agricultural land and public rights of way including permanent adverse cumulative effect as a result of the permanent loss of Best and Most Versatile agricultural land during construction of the Project and temporary adverse cumulative effect on public rights of way, including footpaths and bridleways arising from disruption and reduced access during construction of the Project and other projects/plans.**

- 4.135 **WODC consider that a revised scheme design and exclusion of development from areas of best and most versatile agricultural land will minimise negative impacts on soil resources. The suggested revisions to the project design and development area suggested in section 4 of this response would significantly reduce the area of BMV agricultural land included in the project and would reduce impacts on the public rights of way network in proximity to settlements.**

Air Quality

- 4.136 Infrastructure development can have adverse effects on air quality. The construction, operation and decommissioning phases can involve emissions to air which could lead to adverse impacts on health, on protected species and habitats, or on the wider countryside.
- 4.137 Where the project is likely to have adverse effects on air quality the applicant should undertake an assessment of the impacts of the proposed project as part of the Environmental Statement (ES).
- 4.138 Air quality considerations should be given substantial weight where a project would lead to a deterioration in air quality in an area, or leads to a new area where air quality breaches any national air quality limits.
- 4.139 During construction, the key pollutant is dust, covering both the particulate matter fraction that is suspended in the air that can be breathed, and the deposited dust that has fallen out of the air onto surfaces and which can potentially cause temporary annoyance effects. Property, human-health and vegetation (ecological receptors) are all potentially affected.
- 4.140 The preparation and implementation of a Dust Management Plan (which would be approved by the Local Authority), which would contain measures to reduce the potential impact of dust generated during construction, such as water spraying, covering of dusty materials and speed limits on site.
- 4.141 **WODC support the implementation of appropriate dust control measures during the construction phase to minimise significant effects with respect to air quality during the project.**

Community Benefits

- 4.142 It is noted from the information provided in the Phase 2 Community Consultation Leaflet, that the Applicant is proposing a range of community benefits and opportunities beyond solar.
- 4.143 **WODC support the provision of community benefits arising from the scheme and will seek to secure a Community Benefits Agreement (CBA) with the Applicant, to support the delivery of community benefit and environmental improvement projects in the area.**
- 4.144 In terms of financial benefits and the opportunity for a community benefit fund, WODC consider that a £/MW/Annum contribution would be appropriate to reflect the scale of the scheme and to secure benefits over the lifetime of the project.
- 4.145 It is considered that a rate of £500 per MW per year may be appropriate

