



Botley West Solar Farm

Environmental Statement

Volume 3

**Appendix 16.1: Human Health Consultation and
Engagement**

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Glossary

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

Abbreviations

Abbreviation	Meaning
DCO	Development Consent Order
EIA	Environmental Impact Assessment
ES	Environmental Statement
HIA	Health Impact Assessment
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
PEIR	Preliminary Environmental Information Report
PV	Photovoltaic
PVDP	Photovolt Development Partners GmbH

1 Human Health Consultation and Engagement

1.1 Introduction

Overview

- 1.1.1 This Appendix of the Environmental Statement (ES) has been prepared by RPS on behalf of Photovolt Development Partners GmbH. (PVDP) for the Applicant, SolarFive Ltd. (SolarFive). This Appendix supports Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].
- 1.1.2 This Appendix outlines the consultation processes undertaken for the Project, as part of the Environmental Impact Assessment (EIA) and in accordance with the Planning Act 2008 and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017.
- 1.1.3 The consultation process ensures that key stakeholders, including local communities, statutory consultees and relevant agencies, were engaged throughout the pre-application phase. Responses from the following consultations are reported in this Appendix:
- Scoping Opinion
 - Statutory consultation
 - Section 42 consultation with statutory consultees
 - Section 47 consultation with the local community
 - Additional consultation with the OCC public health team.
- 1.1.4 This Appendix also provides a record of issues that have been scoped out of the health assessment. These were set out in the Scoping Report and agreed in the Scoping Opinion.

1.2 Consultation and Engagement

Scoping Opinion

- 1.2.1 On 15 June 2023, the Applicants submitted a Scoping Report to the Planning Inspectorate, which described the scope and methodology for the technical studies being undertaken to provide an assessment of any likely significant effects for the construction, operation and maintenance and decommissioning phases. It also described those topics or sub-topics which are proposed to be scoped out of the EIA process and provided justification as to why the Project would not have the potential to give rise to likely significant environmental effects in these areas.
- 1.2.2 Following consultation with the appropriate statutory bodies, the Planning Inspectorate (on behalf of the Secretary of State) provided a Scoping Opinion on 24 July 2023. Key issues raised during the scoping process specific to human health are listed in **Table 1-1**, together with details of how these issues have been addressed within the ES.

Table 1-1: Summary of scoping responses

Comment	How and where considered in the ES
Planning Inspectorate	
<p>ID 3.10.1. The Scoping Report states that the impacts on physical activity [as a determinant of health] would be assessed under the impacts to open space, leisure and play (including PRoW). The Inspectorate agrees with this approach.</p>	<p>Construction, Operation and Decommissioning effects on physical activity are scoped out as set out in Table 1-5. Open space, leisure and play is scoped in, see section 16.9 of Volume 1, Chapter 16: Human Health of the ES.</p>
<p>ID 3.10.2. The Scoping Report states that healthy workforce behaviour is proposed to be encouraged through a workforce management plan. The number of workforce professionals are not anticipated to be of a number to affect local markets e.g., drinking alcohol during any phase of the Proposed Development. The Inspectorate agrees that this matter can be scoped out on the basis that the ES confirms the number of construction workers would not be likely to lead to significant effects in this regard.</p>	<p>Further details on construction workforce are provided in Volume 1, Chapter 15: Socio-Economics of the ES [EN010147/APP/6.3]. The health assessment also considers workforce numbers in relation to healthcare capacity, see section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]. Construction effects on healthy workforce behaviour are scoped out as shown in Table 1-5.</p>
<p>ID 3.10.3. The Scoping Report states that construction workers are not anticipated to require accommodation as the site has good road linkages and accessibility at a local and regional level. The Inspectorate agrees to scope this matter out on the basis that the ES confirms the number of the construction workers would not be likely to lead significant effects in this regard.</p>	<p>Further details on construction workforce are provided in Volume 1, Chapter 15: Socio-Economics of the ES [EN010147/APP/6.3]. The health assessment also considers workforce numbers in relation to healthcare capacity, see section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]. Impacts on housing are scoped out as set out in Table 1-5.</p>
<p>ID 3.10.4. The Inspectorate agrees to scope out impacts from relocation during construction and operation on the basis that the Project is not stated to require compulsory land purchases of homes or community facilities.</p>	<p>The Project does not require compulsory land purchases of homes or community facilities for its construction, operation and decommissioning.</p>
<p>ID 3.10.5. The Scoping Report states that impacts on community safety are scoped out and best practice would be employed via management plans for construction. Any potential risks that could impact will be reported in the ES and mitigation will be proposed where appropriate. The Inspectorate agrees this matter can be scoped out of the assessment on the basis of the information presented in the Scoping Report.</p>	<p>Construction effects on community safety are scoped out as shown in Table 1-5.</p>

Comment	How and where considered in the ES
<p>ID 3.10.6. The Inspectorate agrees that indirect impacts on social participation can be considered under impacts to access, transport mode, and connection and that direct impacts on social participation may be scoped out on the basis that the Project would not directly affect land for community interactions such as meeting places which support social participation.</p>	<p>Noted. The Project is not affecting any land for community interactions such as meeting places which support social participation. Operation effects on social interaction have been scoped out as set out in Table 1-5 of section 16.4 of Volume 1, Chapter 16: Human Health of the ES.</p> <p>Impacts to transport mode, access, and connection are scoped in (see section 16.9 of Volume 1, Chapter 16: Human Health of the ES) [EN010147/APP/6.3].</p>
<p>ID 3.10.7. The Scoping Report states that construction and decommissioning activities are unlikely to affect bathing waters and best practices are proposed to be secured through management plans to reduce/avoid risks of pollution to waterbodies and responses to accidental spills.</p> <p>It is proposed that where significant effects are identified in the Hydrology and Ground Conditions Chapter of the ES, an assessment of significant effects to human health from water quality/availability changes will be included.</p> <p>The Inspectorate agrees with this approach on the basis that the ES cross-references where appropriate.</p>	<p>Construction water quality effects are scoped out as set out in Table 1-5 of section 16.4 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p> <p>Volume 1, Chapter 10: Hydrology and Flood Risks of the ES [EN010147/APP/6.3] concludes that there will be no significant effects arising from the Project during construction, operation and maintenance and decommissioning phases in respect to hydrology and flood risk.</p> <p>Cross-references to Volume 1, Chapter 10: Hydrology and Flood Risk of the ES [EN010147/APP/6.3] and Volume 1, Chapter 11: Ground Conditions of the ES [EN010147/APP/6.3] have been made where relevant in Volume 1, Chapter 16: Human Health of the ES</p>
<p>ID 3.10.8. The Scoping Report states that operational effects on water quality and availability are not anticipated on a scale that would lead to likely significant effects. Best practice measures are proposed to be secured through management plans to reduced/avoid risks of pollution to waterbodies and responses to accidental spills. This matter is therefore scoped out.</p> <p>The Inspectorate agrees that where potential significant adverse effects are identified to water quality/availability in the Hydrology/Ground Conditions Chapters, impacts to Human Health should be assessed and where no significant adverse are identified to water quality/availability in the Hydrology/Ground Conditions Chapters, this can be scoped out of the Human Health Chapter. Appropriate cross-reference should be made in the ES.</p>	<p>Volume 1, Chapter 10: Hydrology and Flood Risks of the ES [EN010147/APP/6.3] concludes that there will be no significant effects arising from the Project during construction, operation and maintenance and decommissioning phases in respect to hydrology and flood risk.</p> <p>Operation and maintenance water quality effects are scoped out as set out in Table 1-5.</p>

Comment	How and where considered in the ES
<p>ID 3.10.9. Scoping Report paragraph 6.2.21 states that limited excavations will be associated with the Project (e.g., cable routes) and that material will be reused in reinstatement and landscaping and restoration of the site. Best practice measures are proposed to be secured through relevant management plans to manage impacts from contamination (existing historic, dust etc.). It is proposed that where significant effects are identified in the Agricultural Land and Soil Chapter of the ES, an assessment of significant effects to human health from potential land contamination will be included.</p> <p>The Inspectorate agrees with this approach and appropriate cross reference should be made in the ES</p>	<p>Noted. Construction land quality effects are scoped out as set out in Table 1-5.</p> <p>Cross-references to Volume 1, Chapter 17: Agricultural Land Use and Public Rights of Way of the ES have been made where relevant. Cross-references also made to appropriate management plans, including: Landscape, Ecology & Amenities Layer Plans [EN010147/APP/7.3.3], Outline Landscape and Ecology Management Plan [EN010147/APP/7.6.3], and Outline PRow Management Strategy (implanted through the Outline CoCP [EN010147/APP/7.6.]).</p>
<p>ID 3.10.10. The Scoping Report states that excavations are not anticipated to be required during operations. Best practice measures are proposed to be secured through management plans to reduce/avoid risks of contamination. Operational effects on land quality are not anticipated on a scale that would lead to likely significant effects.</p> <p>The Inspectorate agrees to scope this matter out.</p>	<p>Noted. Operation and maintenance land quality effects have been scoped out as set out in Table 1-5.</p>
<p>ID 3.10.11. The Scoping Report states that a high proportion of the Project workforce is anticipated to be those that are resident in the regional area and therefore no changes to the health and social services are anticipated from in-migrating workers.</p> <p>The Inspectorate agrees to scope this matter out on the basis that ES confirms the number of construction workers would not be likely to lead significant effects in this regard.</p>	<p>Health and Social Care Services have been scoped out as set out in Table 1-5.</p> <p>Further details on construction workforce are provided in Volume 1, Chapter 15: Socio-Economics of the ES [EN010147/APP/6.3]. The health assessment also considers workforce numbers in relation to healthcare capacity, see section 16.6, Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>ID 3.10.12. The Inspectorate agrees that based on the location and nature of the Proposed Development, it would be unlikely to significantly affect the built environment and that any introduced infrastructure to the landscape would be assessed under the 'community identity' health determinant.</p>	<p>Noted. Potential effects to community identity are considered in section 16.9, Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>ID 3.10.13. All sources used in the Scoping Report for the Human Health Chapter have errors in their reference. The ES should ensure that any references are properly sourced and listed without error to verify supporting information and evidence.</p>	<p>Noted. All references in the ES have been properly sourced and listed.</p>
<p>ID 3.10.14. Scoping Report Section 7.10 does not explain how significance will be determined or what constitutes a significant effect. The ES should set out an appropriate methodology to identify</p>	<p>An appropriate methodology to identify significant population health effects (As outlined in IEMA</p>

Comment	How and where considered in the ES
<p>significant effects supported by consultation where appropriate and in line with relevant guidance.</p>	<p>Guidance, Pyper, Lamming, et al., 2022; Pyper, Waples, et al., 2022) supported by consultation has been set out in this chapter of the ES (see section 16.4 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]).</p>
<p>ID 3.10.15. The Scoping Report identifies that vulnerable populations will be assessed in the ES however, the term vulnerable populations is not defined and it is unclear how sensitivity will be applied to these receptors. The ES should define what receptors fall within the scope of the vulnerable population definition assessed.</p>	<p>The ES has provided an appropriate definition of the term vulnerable populations including a methodology on how sensitivity has been applied to these receptors as outlined in the IEMA Guidance (Pyper, Lamming, et al., 2022; Pyper, Waples, et al., 2022) (see section 16.5 and 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]).</p>
<p>ID 3.15.4. Scoping Report paragraph 9.4.3 references use of public exposure guidelines published by the International Commission on Non – Ionizing Radiation Protection (ICNIRP) in 1998 which sets a threshold for potential human health effects for lines at 132kV or more. The export cable is the only cable anticipated to exceed this threshold running between the solar array and the National Grid substation.</p> <p>Scoping Report paragraph 1.3.7 identifies the potential locations of the substation within and outside of the Order Limits. These would be located to the south of the site near Farmoor Reservoir in both scenarios. The Scoping is undertaken on the assumption that the substation is located within the Order Limits. This means that the cable is located 120m from the nearest residential receptor. It is proposed that the ES will detail any design measures taken to avoid potential adverse effects from EMF on receptors and therefore a separate chapter is not required.</p> <p>The Scoping Report does not identify whether receptors would be impacted if the substation is located at the alternative location outside of the red line boundary. Should this remain an option in the ES, or become the chosen option, the ES should provide evidence to demonstrate that there would be no effect pathway to sensitive receptors, including airports. The Applicant is directed to consultation responses from the UK Health and Safety Executive and Cherwell District Council (Appendix 2 of this Opinion). Where an impact pathway exists, the ES should assess significant effects where they are likely to occur.</p>	<p>The Main Substation and NG Substation are within the Order Limits to the south of Farmoor Reservoir.</p> <p>The Project has committed to compliance with exposure standards set out in Department for Energy and Climate Change (DECC) Voluntary Code of Practice (Department for Energy Security and Net Zero, 2012) including compliance with the International Commission on Non-Ionising Radiation Protection (ICNIRP) public exposure guidelines (ICNIRP, 1998, 2010). For operation this commitment is secured through DCO requirement secured through outline operational management plan [EN010147/APP/7.6.2].</p> <p>These are the appropriate health protection standards that would be complied with through detailed post-consent engineering and as such there is no effect pathway for a significant adverse public health effect.</p> <p>Section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] sets out an assessment of public understanding of risk in relation to EMF exposure. This relates to mental health effects associated with concern about EMF exposure</p>

Comment	How and where considered in the ES
	even where the actual risks are avoided through compliance with the ICNIRP guidelines.
UK Health Security Agency (UKHSA)	
<p>Environmental Public Health</p> <p>We recognise the promoter’s proposal to include a human health section in the Environmental Statement (ES). We believe the summation of relevant issues into a specific section of the report provides a focus which ensures that public health is given adequate consideration. The section should summarise key information, risk assessments, proposed mitigation measures, conclusions and residual impacts, relating to human health. Compliance with the requirements of National Policy Statements and relevant guidance and standards should also be highlighted.</p>	<p>This chapter of the ES summarises key information, conducted risk assessments, including proposed mitigation measures, conclusions and residual impacts relating to human health.</p> <p>This assessment also complies with the NPS requirements, and follows relevant best practice guidance, as set out in sections 16.2 and 16.4, Volume 1, Chapter 16: Human Health of the ES.</p>
<p>Environmental Public Health</p> <p>In terms of the level of detail to be included in an ES, we recognise that the differing nature of projects is such that their impacts will vary. UKHSA and OHID’s predecessor organisation Public Health England produced an advice document ‘Advice on the content of Environmental Statements accompanying an application under the NSIP Regime’, setting out aspects to be addressed within the Environmental Statement. This advice document and its recommendations are still valid and should be considered when preparing an ES. Please note that where impacts relating to health and/or further assessments are scoped out, promoters should fully explain and justify this within the submitted documentation.</p>	<p>Noted. The PHE advice document, along with other best practice guidance, has informed this assessment. Guidance followed by this assessment is detailed in section 16.4.1 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>Identification of local human receptors</p> <p>The installation will be located in Oxfordshire, covering a significant area of land and has the potential to impact local receptors. Local receptors have not been fully identified in the current documentation as the assessments are not detailed at this stage.</p> <p>UKHSA would recommend more detailed identification and consideration of local receptors when considering baseline of existing environmental quality and the assessment of potential future impacts. The development location and distance to off-site receptors should be clearly identified. We would recommend the identification and consideration of impacts on residential and sensitive receptors (e.g. schools, nursing homes and healthcare facilities, as well as other vulnerable populations) in the areas which may be effected by emissions. Details of mitigation measures that will be in place and that it will meet appropriate guidance / standards to minimise risk to local receptors, should also be provided.</p>	<p>This assessment has regard to sensitivities within local receptors (see section 16.5 of Volume 1, Chapter 16: Human Health of the ES, Vulnerable groups; section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], Key receptors; section 16.6 of Volume 1, Chapter 16: Human Health of the ES, Population Profile).</p>
<p>Electric and Magnetic Fields</p> <p>UKHSA requests that the promoter confirms that either the project does not contain any EMF sources that has a potential public health impact; or ensures that an appropriate health impact assessment is carried out in the ES. For information, please see the EMF section of the supplementary material that accompanies this reply, entitled</p>	<p>Electromagnetic fields are mitigated by adhering to the International Commission on Non-ionizing Radiation Protection (ICNIRP) and Government voluntary Code of Practice on EMF public exposure (Department for Energy Security</p>

Comment	How and where considered in the ES
<p>'Advice on the content of Environmental Statements accompanying an application under the NSIP Regime'.</p>	<p>and Net Zero, 2012; ICNIRP, 1998, 2010), as per EN-5 requirements, see Table 16-4 of section 16.2 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]. The Project will comply with the relevant public EMF exposure guidelines outlined above.</p>

Bladon Parish Council

<p>Table 7.19 of the Scoping Report includes 'Housing' as a subject area, which is also the same name for the receptor under Socioeconomics. The areas/subjects identified under each entry are not consistent with each other. This could cause confusion as the application progresses.</p>	<p>Noted. 'Housing' is a health determinant in the context of this chapter and has been scoped out as detailed in Table 1-5.</p>
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<p>Table 7.19 of the Scoping Report states that Housing is out of scope at all stages of the Project. As explained in point 33 above the ES should include an assessment of the impact on Housing at all stages of the project.</p>	<p>This issue is considered in Chapter 15: Socio Economics of the ES. No additional health outcomes are anticipated therefore Housing remains scoped out (see Table 1-5).</p>
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Hanborough Parish Council

<p>HPC notes that a number of issues stated to be scoped out for ES assessment purposes are already covered by other sections, such as 7.9 – Socio-Economic, immediately above. HPC's comments made there are equally applicable under this section heading.</p>	<p>Noted. The human health assessment includes assessment of socio-economic determinants of health, namely education and training and employment and income (section 16.9). Issues scoped out of the assessment (and justification) is provided in section 1.3 of this appendix.</p>
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<p>So far as the item relating to Health and Social Care services is concerned in Table 7.19, HPC notes the assumption being made that a high proportion of the proposed workforce will come from within the regional area. HPC does not consider that there is any evidence that this will be the case, and notes the relatively high mobility of those who work in the construction industry. In addition, HPC considers that the demographic of residents in the villages and communities most closely impacted by the BWSF scheme do not, in the main, include any great number of younger construction workers able and capable of working long and arduous days constructing the BWSF project.</p>	<p>This issue is considered in Chapter 15: Socio Economics of the ES.</p>
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<p>Local primary healthcare services are already stretched in the local communities. There would be limited room for additional temporary workers, who would therefore have to take their complaints and ailments to local A&E departments. Those are even more under pressure of numbers than local primary healthcare providers. HPC</p>	<p>As stated in Volume 1, Chapter 15: Socio Economics of the ES, construction workers are anticipated to be from the study area, meaning they will have</p>
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Comment

considers that a careful and thorough consideration should be given to this aspect of the SR, to ensure that it is adequately dealt with in the ES assessment in due course. This item should not be scoped out, as suggested.

How and where considered in the ES

access to their existing healthcare providers.

Additionally, as stated in Table 16.23 (embedded mitigation measures) of Volume 1, Chapter 16: Human Health of the ES, construction and decommissioning workforces' healthcare support provision would comply with the Health and Safety Regulations 1981 and the UK Health and Safety Executive guidance L74 (Third edition) Published 2013 and updated in 2024. This is a committed mitigation secured through the Outline CoCP [EN010147/APP/7.6].

Baseline healthcare capacity in the area is assessed in **section 16.6** of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]. No additional outcomes for population health are anticipated, therefore Health and Social care services remains scoped out (see **Table 1-5**).

Oxfordshire County Council (OCC)

We acknowledge the fact that the disturbances to access to green space and public rights of way have been scoped into the assessment. However, it will be vital that the impacts on physical activity in relation to these disturbances are assessed and where possible mitigated through methods such as temporary diversions to PRow. Areas where informal public access is permitted (as well as formal PRow) should be included in the assessment.

This is agreed and impacts on physical activity have been fully assessed under open space, leisure and play health determinant in this assessment (see **section 16.9** of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]).

The potential construction phase impacts on the ability for people to engage in active travel have been scoped in, and this should also be accompanied by an acknowledgement that alternative routes will be provided and appropriately signposted.

This is agreed, **section 16.9** of Volume 1, Chapter 16: Human Health of the ES includes the appropriate mitigation measures that would be adopted as part of the Project to further reduce impacts on active travel including provision of alternative routes and the appropriate signposting.

It is noted that any changes or improvements to access to public open space and PRow will be considered during the operational phase. While this is welcomed, this needs to be accompanied with consideration of the design of any routes through or around the new solar farm as this application develops further. We need to ensure that local residents and visitors to the area are encouraged to use them.

This is agreed, **section 16.9** of Volume 1, Chapter 16: Human Health of the ES includes the appropriate mitigation measures to be adopted as part of the Project regarding accessibility including ways to encourage local residents

Comment	How and where considered in the ES
	<p>and visitors to use existing and alternative routes provided by the Project.</p> <p>See also Chapter 8: Landscape and Visual Impact Assessment of the ES [EN010147/APP/6.3].</p>
<p>The scoping in of education and training opportunities for local and vulnerable groups in relation to the construction and decommissioning phase is welcomed.</p>	<p>Noted. Education and training opportunities for local and vulnerable groups in relation to the construction and decommissioning phase is considered in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>The assessment of air quality and noise and vibration via management plans will help to mitigate the impacts on the local population, however it will be imperative that those walking, wheeling, cycling and horse-riding in the vicinity of the site are considered as vulnerable receptors, due to their potential proximity to construction and operational works as they navigate PRow.</p>	<p>Section 16.9 (Air quality and noise and vibration) of Volume 1, Chapter 16: Human Health of the ES includes geographical vulnerability (i.e. people who live in close proximity to the Project) as part of the assessment. Additionally, Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] includes assessment of construction and operational impacts on users of PRow, under the open space, leisure and play determinant (section 16.9).</p>
<p>It is noted that the 'operational phase – transport modes, access and connections' element has been scoped out, and instead the human health assessment will keep a watching brief on the transport assessment. This is a concern because it is presumed as the needs of non-motorised users – their access to PRow and associated connectivity to local green space - should be considered at every stage in the life cycle of the development.</p>	<p>Operational impacts on non-motorised users are considered under the open space, leisure and play determinant of health (see section 16.9 of Volume 1, Chapter 16: Human Health of the ES). Operational transport effects relates only to use of public highways as active travel routes. The impacts on public highways from occasional maintenance vehicles would not be of a scale to affect public health.</p>
<p>A full Health Impact Assessment will be required as part of this application, details of which can be found on the Future Oxfordshire Partnership website</p>	<p>This is agreed and has been discussed with OCC public health team. The assessment has regard to the Oxfordshire Health Impact Assessment Toolkit (see section 16.4 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] , Relevant Guidance) (Oxfordshire County Council, 2021). A full Health Impact Assessment has been undertaken and is reported as an embedded</p>

Comment	How and where considered in the ES
Vale of White Horse District Council	
<p>Electro Magnetic Field effects should be scoped in.</p>	<p>Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] assesses (in section 16.9) the public understanding of EMF risk, and also states how actual EMF risk is mitigated through compliance by design. This includes compliance with relevant guidelines and health protection standards set out in government policy (Department for Energy Security and Net Zero, 2012; ICNIRP, 1998, 2010).</p>
West Oxfordshire District Council	
<p>There may be potential to consider lower level Census Geography boundaries including MSOAs and LSOAs to understand the characteristics of and impacts on individual communities in more detail.</p>	<p>Baseline data has been collected at the national, regional and site-specific boundaries, including ward level data for published public health indicators and Lower-super output areas for deprivation. See section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>Additional sources of baseline data to be included:</p> <ul style="list-style-type: none"> • Oxfordshire Insight • Oxfordshire Joint Strategic Needs Assessment 	<p>Noted. Oxfordshire Insight (Oxfordshire County Council, 2024) and the Oxfordshire Joint Strategic Needs Assessment (REF) have informed the baseline, see section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p>
<p>Health Related Behaviours</p> <ul style="list-style-type: none"> • Risk taking behaviour- Clarification on the scale of the workforce during the construction phase would be useful in reaching a judgement about community health behaviours 	<p>Further details on construction workforce are provided in Volume 1, Chapter 15: Socio-Economics of the ES [EN010147/APP/6.3]. The health assessment also considers workforce numbers in relation to healthcare capacity, see section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], Baseline Healthcare Capacity.</p>
Woodstock Town Council	
<p>Table 7.19 includes 'Housing' as a subject area, which is also the same name for the receptor under Socio-Economics. The</p>	<p>Noted. Housing' is a health determinant in the context of this</p>

Comment	How and where considered in the ES
<p>areas/subjects identified under each entry are not consistent with each other. This could cause confusion as the application progresses.</p>	<p>chapter and has been scoped out as detailed in Table 1-5.</p>
<p>Table 7.19 states that Housing is out of scope at all stages of the Project. As explained in point 43 above the ES should include an assessment of the impact on Housing at all stages of the project.</p>	<p>This issue is considered in Volume 1, Chapter 15: Socio Economics of the ES [EN010147/APP/6.3]. No additional health outcomes are anticipated therefore this issue remains scoped out.</p>

Yarnton Parish Council

<p>Physical activity is likely to be affected as residents share that they do not wish to walk among such an extensive area of solar arrays. Residents may choose to drive to visit AONB instead increasing the environmental impact of unnecessary car use.</p>	<p>This issue is covered in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] under the open space, leisure and play determinant, which considers mitigation strategies to maintain and promote physical activity.</p>
<p>Open land accessible to those living in urban areas is an important contributor to wellbeing and mental health.</p>	<p>Noted. This issue is considered in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], under the open space, leisure and play determinant, which assesses access to PRow and recreational routes, as well as the physical and mental health benefits of this.</p>

Statutory Consultation

- 1.2.3 The PEIR was issued to inform the statutory consultation carried out on the Project between 30 November 2023 and 8 February 2024. It presented the preliminary findings of the EIA process for the Project at that time. The consultation responses specific to the human health chapter and the way in which they have been taken into account in this ES chapter are set out in the Consultation Report (doc. ref. 5.1)
- 1.2.4 Following the receipt of the Scoping Opinion, consultation and engagement with interested parties specific to human health has continued. The responses have informed health-specific discussions with statutory stakeholders, including UKHSA and OCC.
- 1.2.5 The following sections set out the health-related response from the Planning Act Section 42 consultation with statutory consultees and the Section 47 consultation with the local community. In both cases signposting is provided to where these comments have been taken into account within the health assessment
- 1.2.6 Section 42 consultation – health related responses and signposting A summary of the key issues raised during consultation activities undertaken to

date is presented in **Table 1-2**, together with how these issues have been considered in the production of this ES chapter.

Table 1-2: Summary of consultation relevant to this chapter

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
17 April 2024	United Kingdom Health Security Agency (UKHSA) and the Office for Health Improvement and Disparities (OHID)	The UKHSA/OHID agreed with the scope of this assessment.	Noted. The agreed scope is set out in section 16.4 of Volume 1, Chapter 16: Human Health of the ES.
		The UKHSA agreed in principle with the with the Human Health Study Area.	Noted. The agreed study area is unchanged for the ES as set out section 16.4 of Volume 1, Chapter 16: Human Health of the ES.
		The UKHSA agreed in principle with the assessment methodology which follows the guidance by IEMA (Pyper, Lamming, et al., 2022; Pyper, Waples, et al., 2022)	Noted. The agreed methodology is unchanged for the ES and is set out in section 16.5 of Volume 1, Chapter 16: Human Health of the ES.
		UKHSA would like to receive feedback and outcomes from the consultation with Oxfordshire County Council Public Health Team.	Ongoing post-submission meetings with UKSHA/OHID are proposed, including feeding back on discussions with Oxfordshire County Council Public Health Team.
19 April 2024	Oxfordshire County Council (OCC)	The OCC Public Health Team agreed in principle with the Human Health study area.	Noted. The agreed study area is unchanged for the ES as set out in section 16.4 of Volume 1, Chapter 16: Human Health of the ES.
		The OCC Public Health Team agreed in principle with the scope of the assessment.	Noted. The agreed scope is unchanged for the ES and is set out in section 16.4 of Volume 1, Chapter 16: Human Health of the ES.
		The OCC Public Health Team agreed in principle with the methodology which follows the guidance by IEMA (Pyper, Lamming, et al., 2022; Pyper, Waples, et al., 2022) and IPH (Pyper et al., 2021) and	Noted. The agreed methodology is has been updated for the ES, including the inclusion of the Oxfordshire Health Impact Assessment

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
		recommended regard to the Oxfordshire Health Impact Assessment Toolkit.	<p>Toolkit (Oxfordshire County Council, 2021) and is set out in section 16.5 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].</p> <p>Other recommendations from the OCC and how they have been addressed are outlined in Error! Reference source not found..</p>
		The OCC Public Health Team emphasised the importance of sustainable food production as a priority for Oxfordshire and the UK. The OCC agreed with scoping in diet and nutrition and the consideration of food production as an issue of the project. The county-wide level effect of diet and nutrition has to be considered in the ES.	Noted. Diet and Nutrition is assessed in this chapter of the ES in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] . The local and country level effect of the project on food production is considered.

Section 47 consultation – health related responses and signposting

1.2.7 Phase 2 consultation was undertaken between 30th November 2023 and 8th February 2024. A summary of the main themes arising from the responses relevant to human health are presented in

1.2.8 **Table 1-3**, together with how these issues have been considered in the production of this ES chapter.

Table 1-3: Phase 2 Consultation Responses

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
Between 30 th November 2023 and 8 th February 2024	<i>Public Consultation, Question 6: 'Do you have any comments on the information presented in our PEIR?'</i>	<p>Cycle Routes and Footpaths</p> <ul style="list-style-type: none"> • Access to PRoW: <ul style="list-style-type: none"> – Concern about impacts on access to PRoWs. – Concern regarding the effect of mitigation measures on views while walking on PRoWs. – Concern about access to footpaths during construction and which PRoWs will be affected. • New and improved footpaths <ul style="list-style-type: none"> – Enquiries about creating a new circular walk from Bladon Heath, Burleigh Woods, crossing the Evenlode to Pinsley Wood, and connecting with the PRoW into Blenheim and Blandon. – Enquiries about improvements to public access across the site. • Impact on open countryside: <ul style="list-style-type: none"> – Concern about loss of access to the open countryside and impacts on footpaths. – Concern about the view of the tracks along Cassington and Yarnton. • Health and wellbeing: <ul style="list-style-type: none"> – Concern about the impact of changing cycle routes and footpaths on residents' physical and mental health and wellbeing. – Concern about mental health issues worsening, with anxiety and depression higher in the region than the national average. • Recreation <ul style="list-style-type: none"> – Concern regarding proximity to Bladon's recreation area used by the local primary school and as holiday camp provision. 	<p>Impacts on access to PRoWs are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], Open space, leisure and play, including details of the PRoWs that will be affected by the Project, communities affected and mitigation measures to minimise visual impacts while walking on PRoWs. This includes design features and PRoW enhancements (including greenways, new cycle paths and new permissive paths) that encourage walking and cycling. These consultation responses have informed the conclusions reached.</p> <p>Health effects of provision of alternative space and access routes is informed by Volume 1, Chapter 12: Traffic and Transport of the ES and discussed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], under the Transport modes, access and connections determinant. These consultation responses have informed the conclusions reached.</p>

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
		<p>Community Impact</p> <ul style="list-style-type: none"> • Community benefits: <ul style="list-style-type: none"> – Enquiries about offers of community benefits (e.g. cash funds). • Economic and quality of life effects: <ul style="list-style-type: none"> – Concern about employment effects and long-term economic impacts. – Concern about the negative impact on residents' quality of life. 	<p>Employment and income health effects are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES, Employment and income. These consultation responses have informed the conclusions reached.</p> <p>Information regarding funding from a Community Benefit Fund for a community growing scheme is provided in Volume 1, Chapter 15: Socio Economics of the ES [EN010147/APP/6.3].</p>
		<p>Local Ecology</p> <ul style="list-style-type: none"> • Ecological impact: <ul style="list-style-type: none"> – Concern about piles creating negative ecological and human health implications. 	<p>Health effects from the Project are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES. This includes noise related to solar frame piles. Impacts on ecology are assessed in Volume 1, Chapter 9: Ecology and Nature Conservation of the ES [EN010147/APP/6.3]. These consultation responses have informed the conclusions reached.</p>
		<p>Traffic, Access and Construction</p> <ul style="list-style-type: none"> • Construction impact: <ul style="list-style-type: none"> – Concern about the impact of construction on mental health. 	<p>Health effects from changes to transport nature and flow rates are informed by Volume 1, Chapter 12: Traffic and Transport of the ES [EN010147/APP/6.3] and assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], under the Transport modes, access and connections determinant. These consultation responses have informed the conclusions reached.</p>

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
		<p>Land and Agriculture</p> <ul style="list-style-type: none"> • Loss of farmland <ul style="list-style-type: none"> – Concern about loss of agricultural farmlands’ impact on physical and mental health. • Loss of green spaces <ul style="list-style-type: none"> – Concern about impact of loss of open green spaces on physical and mental health. 	<p>Health effects from the Project are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES. This includes consideration of effects on diets from changes in farmland and effects on open space. These consultation responses have informed the conclusions reached.</p>
	<p><i>Public Consultation, Question 7: ‘Do you have any specific comments on our cable routes for the project?’</i></p>	<p>Cable route location</p> <ul style="list-style-type: none"> – Concern that the cable routes run alongside residential areas, posing a risk to residents’ health. <p>Footpaths</p> <ul style="list-style-type: none"> – Concern that the footpath access between Eynsham and Swinford lock and beyond to Wytham/Thames path may potentially be compromised. – Concern that the cable routes would impact PRowS. – Concerns about the interaction between the cable route south of Eynsham and the future pedestrian path between Eynsham and Botley. 	<p>Effects relating to Open space and Recreation are informed by Volume 1, Chapter 8: Landscape and Visual Resources, Chapter 12: Traffic and Transport and Chapter 17: Agricultural Land Use and Public Rights of Way of the ES and considered in section 16.9 of Volume 1, Chapter 16: Human Health of the ES, Open space, leisure and play. This includes design features and PRowS enhancements (including greenways, new cycle paths and new permissive paths) that encourage walking and cycling. These consultation responses have informed the conclusions reached.</p>
	<p><i>Public Consultation, Question 8: ‘Please provide any preferences for where you would like areas for community food growing to be placed.’</i></p>	<p>Community food growing locations</p> <ul style="list-style-type: none"> – Concern about security risks associated with accessing sites within large-scale solar installations. – Recommendations regarding location near residential areas to increase volunteer participation, enhance school engagement, and simplify distribution and access. – Recommendations regarding maximising benefits to those closest to the proposed sites. 	<p>Health effects from the Project are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES. This includes consideration of effects on diets from changes in farmland and project proposals and mitigation commitments to support local food growing. This includes the provision of space for at least two community food growing groups to operate on the Site (secured through the Outline Operational Management Plan [EN010147/APP/7.6.2]).</p>

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
		<ul style="list-style-type: none"> Concerns that solar panels may damage land open to community food growing. 	<p>These consultation responses have informed the conclusions reached.</p>
		<p>Traffic, Access and Construction</p> <ul style="list-style-type: none"> Concern about accessibility problems travelling and operating land fields of electric and solar installations. 	<p>Transport effects are informed by Volume 1, Chapter 12: Traffic and Transport of the ES and considered in section 16.9 of Volume 1, Chapter 16: Human Health of the ES, Transport modes, access and connections. These consultation responses have informed the conclusions reached.</p>
	<p><i>Public Consultation, Question 9: 'Please provide any feedback on our approach to delivering opportunities beyond solar.'</i></p>	<ul style="list-style-type: none"> Concerns about negative impacts on mental health. Recommendations to increase connectivity to improve opportunities to move around in sustainable ways and improve the environment and health. Recommendations for practical commitment to community's mental health facilities within the first year, tackling mental health issues such as loneliness and depression specifically for older people living on their own. Concern over erosion of biodiverse land and visible green places which support mental health and wellbeing. 	<p>Health effects from the Project are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES. This includes consideration of mental health effects, including as influenced by access along the public rights of way network. These consultation responses have informed the conclusions reached.</p> <p>Information regarding funding from a Community Benefit Fund, which could include supporting mental health initiatives, is provided in Volume 1, Chapter 15: Socio Economics of the ES [EN010147/APP/6.3].</p>
	<p><i>Public Consultation, Email Feedback</i></p>	<ul style="list-style-type: none"> Concern regarding loss of access to land and impact on community mental health Concerns regarding impact of landscape and visual effects on human health and wellbeing Concern regarding scoping out crime and fear of crime Concerns regarding the impacts of EMF on physical health 	<p>Health effects from the Project are assessed in section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]. This includes consideration of access along the public rights of way network, visual impacts and how they may affect community identity and public understanding of risk. The concern around crime is acknowledged, however the potential for widespread actual or perceived crime that could significantly affect population health is considered</p>

Date	Consultee and type of response	Issues Raised	How and where considered in the ES
			unlikely. These consultation responses have informed the conclusions reached.

Additional consultation with public health stakeholders

1.2.9 Table 1-4 sets out the key points raised through discussion with OCC public health team during additional consultation, as well as how these have been addressed in the health assessment (Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3]).

Table 1-4: Summary of recommended actions from consultation with OCC

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
19 April 2024	Oxfordshire County Council (OCC) public health team	Specify the operational phase duration of the Project.	Included. Operational phase duration has been specified in Volume 1, Chapter 6: Project Description of the ES and section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3].
		Incorporate evidence from the JSNA to support identified vulnerable groups	Included. Evidence from the Oxfordshire JSNA to support the identified vulnerable groups has been incorporated in section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], Baseline Environment.

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
		Build a population profile	Included. A population profile is provided in section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] , Baseline Environment. Health profiles for all communities affected by the Project are included in Appendix 16.3: Community Health Profile [EN010147/APP/6.5] .
		Identify local health priorities from the JSNA and the Health and Wellbeing Strategy	Included. Evidence from the Oxfordshire JSNA and Health and Wellbeing Strategy including local health needs, local health priorities and vulnerable groups has been incorporated in sections 16.6 and 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] .
		Reference databases included in the Oxon HIA toolkit and incorporate health-determinant-specific data relevant to the identified vulnerable groups	Included. Health-determinant-specific data relevant to vulnerable groups identified in this chapter from databases included in the Oxon HIA Toolkit have been incorporated in Volume 1, Chapter 16: Human Health of the ES (see section 16.6 , Baseline Environment of the assessment).
		Include a statement of community consultation that the health assessment will cross-refer to.	Included. Phase 2 consultation responses together with how these issues have been considered in the production of this ES chapter are outlined in Table 1-3 . A statement is included in section 16.3 of Volume 1, Chapter 16:

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
			Human Health of the ES [EN010147/APP/6.3].
		Clarify securing of enhancement measures.	Included. Section 16.8 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] out how each identified mitigation and enhancement measure are secured.
		Set out securing of mitigation measures.	Included. Section 16.8 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] out how each identified mitigation and enhancement measure are secured.
		Identify relevant facilities associated with vulnerable groups (e.g. schools, healthcare facilities, and care homes).	Included. Relevant facilities associated with vulnerable groups have been identified in section 16.6 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], Baseline Environment
		Specify the mitigation and enhancement measures that would be implemented by the Project (i.e. the Applicant).	Noted. Section 16.8 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], specifies mitigation measures adopted as part of the Project.
		Consider housing around the Woodstock roundabout	Noted. Impacts to housing around Woodstock roundabout in relation to severance and accessibility has been considered in Volume 1, Chapter 12: Transport and Traffic [EN010147/APP/6.3]. Cumulative effects of housing developments in Woodstock are also

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
			assessed in Volume 1, Chapter 15: Socio Economics of the ES [EN010147/APP/6.3]. These technical assessments have informed the Volume 1, Chapter 16: Human Health conclusions.
		Confirm if the community growing space is within the project site boundary	Community growing space is within the project site boundary and more information is available in Volume 1, Chapter 15: Socio Economics of the ES [EN010147/APP/6.3].
		Consider the importance of sustainable food production for Oxfordshire and the UK. Examine country-wide effects	Section 16.9 of Volume 1, Chapter 16: Human Health of the ES discusses impacts of the Project on diet and nutrition. Detailed assessment of sustainable food production is outside the scope of the human health assessment.
		Ensure the 'Integrated' approach to the HIA captures opportunities and positive impacts.	Included. The integrated human impact assessment has actively promoted the public health opportunities of the Project. A statement is set out in Volume 3, Appendix 16.2: Oxfordshire HIA Toolkit Compliance Review. Section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] discusses the likely significant beneficial and adverse effects of the Project.
		Capture how the Project will affect vulnerable groups and local housing and sensitive facilities.	Included. Sensitive facilities associated with vulnerable groups have been identified in section 16.6 of Volume 1, Chapter 16: Human Health of the ES

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
			<p>[EN010147/APP/6.3], Baseline Environment.</p> <p>Section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] assesses how the Project impacts these vulnerable groups, including regard to the location of dwellings and other facilities. Additional detail is set out in Volume 3, Appendix 16.4: Human Health PRow Analysis [EN010147/APP/6.5].</p>
		Understand and address access issues and any potential severance, especially from RLB and current/upcoming housing.	Included. Volume 1, Chapter 12: Transport and Traffic addresses issues related to severance. Section 16.9 of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3] assesses the public health implications of transport accesses changes and PRow impacts.
		Ensure the chapter references other figures to show details of access and route changes and effects on housing (e.g. Transport, LVIA chapters)	Included. Volume 1, Chapter 16: Human Health of the ES makes reference to figures in other chapters where relevant to show details of access and route changes and effects on housing including Volume 1, Chapter 12: Transport and Traffic and Volume 1, Chapter 8: Landscape and Visual Impact Assessment [EN010147/APP/6.3].
		Local opposition and communication: Maintain open communication with local communities to demonstrate their concerns – to be demonstrated in Consultation	Noted. Open communication with local communities has been maintained and the consultation process followed is set out in the Consultation Report. Issues and

Date	Consultee and type of response	Recommendations Raised	How and where actioned in the ES
			concerns raised during communication are summarised in Appendix 16.1: Human Health Consultation and Engagement.

1.3 Issues scoped out of the health assessment

1.3.1 **Table 1-5** provides a summary of the effects scoped out of Volume 1, Chapter 16: Human Health of the ES [EN010147/APP/6.3], including justification for these scoping decisions. This information reflects the agreed Scoping Report and Scoping Opinion position.

Table 1-5: Issues scoped out of the assessment

Issue	Justification
Health related behaviours	
Physical activity	Construction and Decommissioning phases <ul style="list-style-type: none"> Physical activity is an important determinant of health. However, to avoid duplication this issue is addressed under ‘open space, leisure and play’. Operation and maintenance phase <ul style="list-style-type: none"> Same as Construction and Decommissioning.
Risk taking behaviour	Construction and Decommissioning phases <ul style="list-style-type: none"> Issues of community health behaviours being detrimentally affected by the presence of the workforce are scoped out. This reflects a workforce of professionals who are assumed to return to their usual place of residence during periods of leave. The workforce is unlikely to be sufficiently large in number to affect local markets, e.g., for alcohol, cigarettes or gambling, to an extent which could significantly affect community health. Healthy workforce behaviour would be encouraged through a workforce management plan. There is not considered to be the potential for a likely significant population health effect, this issue is scoped out. Operation and maintenance phase <ul style="list-style-type: none"> It is anticipated that the operational workforce engaged in checks and maintenance activities will be smaller in number and more locally resident. Healthy workforce behaviour would be encouraged through a workforce management plan. There is not considered to be the potential for a likely significant population health effect. This issue is scoped out.
Social environment	
Housing	Construction and Decommissioning phases <ul style="list-style-type: none"> The majority of workers are assumed to be based in the regional area, returning to their usual place of residence when not working. There is not expected to be a loss of residential housing or permanent loss of outdoor spaces associated with dwellings. Housing effects are therefore scoped out, and further details on housing is provided in Volume 1 Chapter 15: Socio-economic. Operation and maintenance phase

Issue	Justification
	<ul style="list-style-type: none"> The operational workforce is expected to be smaller in number and more locally resident. The solar farm and the substations are relatively low impact in terms of built form, limiting the potential for any widespread adverse effect on housing value or affordability that could result in a significant population level health effect. This issue is scoped out on the basis of anticipated sensitive design, but the human health assessment will keep a watching brief on the socio-economic assessment. Only if widespread significant blight effects are identified in the socio-economic assessment will this issue be included in discussion within the health assessment.
Relocation	<p>Construction and Decommissioning phases:</p> <ul style="list-style-type: none"> Works would not involve compulsory land purchases of homes or community facilities. This issue is scoped out. <p>Operation and maintenance phase:</p> <ul style="list-style-type: none"> Same as Construction and Decommissioning phases.
Transport modes, access and connections	<p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Minimal operational traffic and impacts on road users are anticipated during operation of the Project. It is unlikely that activity associated with checks and maintenance would have the potential for significant population health effects due to changes in routine or emergency health related journey travel times; access to health promoting goods and services; community severance; or road safety. This issue is scoped out.
Community safety	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> Where surface excavations are undertaken these would be within controlled work areas, including use of appropriate fencing and notifications as required. Best practice measures would be secured through suitable management plans. The risk to the public from accidental injury, e.g., falls is scoped out. The project workforce requires skilled technical roles. There are not anticipated to be community safety or security issues associated with worker behaviour in communities. The project would operate appropriate safeguarding and modern slavery policies. The potential for widespread actual or perceived crime that could affect population health is unlikely. These issues are scoped out. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Operational impacts on community safety from a project of this nature are unlikely to be related to changes in crime or fear of crime. Given the rural context of the Project, no such impacts are anticipated. Electrical risks to the public would be avoided through the design, including fencing of above ground electrical infrastructure. These issues are scoped out.
Community identity, culture, resilience and influence	<p>Construction and Decommissioning phases:</p> <ul style="list-style-type: none"> Demographic changes that could affect community identity are not anticipated, as there would not be a large in-migration or out-migration of workers to local communities. Additionally, transient impacts of the Project, such as the use of construction barriers, lighting or signage, are not expected to disrupt community identity or community gatherings to an extent that could affect population health. Temporary employment opportunities are not expected to have a strong influence on community identity. These issues are scoped out.
Social participation, interaction and support	<p>Construction and Decommissioning phases:</p>

Issue	Justification
	<ul style="list-style-type: none"> The project will not directly affect land used for community interaction (e.g. meeting places, village greens, community centres etc that promote community voluntary, social, cultural or spiritual participation). Any indirect impacts on access to such spaces is addressed under the ‘Transport modes, access and connection’ health determinant. This issue is scoped out. Whilst the Project wide consultation allows for viewpoints to be heard and discussed, this is not considered to be of a scale that would result in significant population health effects. This issue is scoped out. The community response to landscape change is discussed under ‘community identity’. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Same as Construction and Decommissioning phases.

Economic environment

Education and training	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> A large influx for workers, including those bringing families, is not expected, so changes to educational capacity or quality are unlikely and are scoped out. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Operational education and training opportunities are not expected to be on a scale that could influence population health, even with benefits targeted to vulnerable groups. This issue is scoped out.
Employment and income	<p>Construction and Decommissioning:</p> <ul style="list-style-type: none"> The project’s supply chain would be expected to operate appropriate policies that safeguard against significant population challenges to equality, health and safety, for both workers and, as appropriate, the public. These issues are scoped out. The project would operate appropriate employment equality policies but is not expected to influence how employment affects family structures and relationships in local populations. Occupational working conditions include risks that are appropriately managed through health and safety policies and practices. Project activities are not expected to differ from industry norms. These issues are scoped out. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Same as Construction and Decommissioning phases.

Bio-physical environment

Climate change and adaptation	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> Embodied carbon and climate altering pollutant emissions are not of a scale to have the potential for population level effects associated with climate change. This issue is scoped out.
Air quality	<p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Operational air quality effects (e.g., maintenance vehicle emissions) are not anticipated to be of a scale, even accounting for non-threshold effects, that could affect population health. This issue is scoped out.
Water quality or availability	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> Pollution of surface water (including Farmoor Reservoir) or groundwater bodies used as potable sources could affect the quality or availability of

Issue	Justification
	<p>drinking water. Furthermore, the works are predominately in or adjoining agricultural land and food safety could also be compromised by contamination of agricultural water sources. Activities are unlikely to impact bathing waters. However, for all pathways, the Project would adopt standard best practice spill avoidance and response measures that would be secured through management plans. Pollution risk issues are therefore scoped out on the basis of the anticipated effectiveness of such measures.</p> <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> • Checks and maintenance activities are unlikely to result in any water related risks to public health. Any risks would be managed through standard best practice spill avoidance and response measures that would be secured through management plans. Operational effects on water quality and availability are not anticipated to be of a scale that could affect population health. This issue is scoped out.
Land quality	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> • Construction and decommissioning activities will involve limited excavation. Risks of new or historic pollutant mobilisation, including direct exposure and food contamination, are highly likely to be addressed by standard good practice mitigation measures that would be secured through management plans, including to mitigate against dust and aerosol exposure pathways. This topic is scoped out. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> • Checks and maintenance activities are unlikely to require excavations or result in land quality related risks to public health. Any risks would be managed through standard best practice contamination avoidance and response measures that would be secured through management plans. This issue is scoped out.
Noise and vibration	<p>Operation and maintenance phase</p> <ul style="list-style-type: none"> • Checks and maintenance activities are not expected to result in noise and vibration levels that could affect population health. This issue is scoped out.
Radiation	<p>Construction and Decommissioning</p> <ul style="list-style-type: none"> • Non-ionising electro-magnetic field (EMF) effects are scoped out. Works would not include using, or making changes to, active major electrical infrastructure producing EMF. Relevant public and occupational safeguards, secured through management plans, would be followed for the temporary electrical equipment used. Electric and magnetic fields strengths reduce rapidly with distance, often requiring only a few meters separation between the source and receptor, to reach background levels. No ionising radiation sources are proposed. These issues are scope out. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> • Actual electro-magnetic field (EMF) risk to population health is scoped out. All the Project's electrical infrastructure would be designed to comply with the DECC Voluntary Code of Practice (Department for Energy Security and Net Zero, 2012) and ICNIRP public exposure guidelines (ICNIRP, 1998, 2010). This includes electrical infrastructure operating above 132kV (for example at 275 kV and 400 kV), such as the Project secondary and main substations, the NGET substation and cabling connecting theses. Consequently, all electrical infrastructure would comply with the relevant health protection standard set out in Government policy. These guidelines are long standing and have a

Issue	Justification
	high safety margin. The levels of exposure that they require would not pose a risk to public health.

Institutional and built environment

Health and social care services	<p>Construction and Decommissioning phases</p> <ul style="list-style-type: none"> Effects on health and social care are scoped out. The project workforce is assumed to include a high proportion of people who are resident in the regional area. The UK workforce would have NHS entitlement irrespective of place of residence. UK workers away from their usual place of residence for a prolonged period would be able to register with local primary healthcare on a temporary basis. This would facilitate NHS funding for their care. Any multinational members of the workforce are assumed to be covered by health insurance provisions that would allow the NHS to recoup costs to an extent that avoided any significant adverse effect on healthcare services. This is routine practice across industries and sectors. The project will operate appropriate occupational health services. It is not expected that a high proportion of workers would move to the area with dependants requiring social care. Health protection measures such as screening and immunisations are expected to continue from the workers' usual place of residence. Similarly routine dental appointments are assumed to be with the worker's dental practice close to their usual place of residence. Other health services are not expected to be affected as no largescale in-migration is expected and the workforce of skilled technical roles would return to their usual places of residence to access such services. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> Same as Construction and Decommissioning phases.
Built environment	<p>Construction and Decommissioning:</p> <ul style="list-style-type: none"> The potential for the Project to affect existing features of the built environment that are supportive of population health has been considered and scoped out. The project cable route would make use of trenchless techniques, or other measures, to avoid surface disruption at sensitive features, such as road crossings. Similarly, the position of existing services, such as water and sewer systems will be taken into account in planning the export cable corridor and techniques used. Appropriate diversions would occur to avoid disruption to such services. This issue is scoped out. Should works impact utilities (e.g. during cable burying), diversions will be included as secured by the CoCP, submitted alongside the ES. <p>Operation and maintenance phase</p> <ul style="list-style-type: none"> The Project would introduce new but temporary elements in the built environment. This is assessed under the 'community identity' health determinant. Operational activities are not considered to have waste management, land use or infrastructure use implications on a scale that could affect population health. These issues are scoped out.
Wider societal infrastructure and resources	<p>Construction and Decommissioning</p> <ul style="list-style-type: none"> The project's energy infrastructure would not generate public health benefits at this stage. This issue is scoped out.

1.4 References

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