

# Gate Burton Energy Park EN010131

Applicant Responses to Local Impact Reports  
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## Table of Contents

1.	Introduction.....	4
1.1	Overview .....	4
2.	Table 2 - 1: Applicant Responses to Local Impact Reports.....	5

# 1. Introduction

## 1.1 Overview

1.1.1 Four Local Impact Reports (“LIRs”) were submitted to the Planning Inspectorate at Deadline 1 from the following local authorities:

- Lincolnshire County Council (LCC);
- Nottinghamshire County Council (NCC);
- West Lindsey District Council (WLDC); and
- Bassetlaw District Council (BDC).

1.1.2 Local authorities have worked proactively with the Applicant during the preparation of the Application and since its submission and thanks officers for their time to date.

1.1.3 Table 2-1 below sets out comments made by the above Local Authorities in their LIRs and the Applicant’s responses to them.

1.1.4 Where applicable, paragraph or page numbers are provided to assist cross referencing to the relevant LIR.



## 2. Table 2 - 1: Applicant Responses to Local Impact Reports

LIR Ref.	Summary	Applicant response
General matters		
LCC 6.4	<i>The Council recognises that solar energy development can help meet targets for reducing carbon emissions, reduce reliance on fossil fuels and provide local energy security. They can also provide economic diversification for farmers and landowners and support local employment opportunities. Therefore whilst the GBS, by its nature offers significant positive impacts in terms of the production of clean renewable energy and the transition and movements towards Net Zero, in order to be supported it must be demonstrated that there are no significant adverse environmental impacts that cannot be appropriately managed and/or mitigated through the DCO process.</i>	No response required.
NCC 2.28	<i>It is requested that the examiner considers the time period for the life of the project. County Council officers are of the opinion that if the ES has been based on a life period of 60 years then the development order should be for 60 years and not indefinitely.</i>	The Applicant considered the oral submissions made by interested parties at the issue specific hearing on the draft DCO [APP-215/6.1] regarding the need for a mechanism to secure a 60-year temporal limit. As a result, the Applicant updated the draft DCO at Deadline 1 [REP-018/6.1] to amend Requirement 19 to ensure that decommissioning must take place no later than 60 years following the date of final commissioning of the authorised development. Therefore, the Scheme cannot continue indefinitely and is reversible after its lifetime.

### Landscape and Visual Impact



LIR Ref.	Summary	Applicant response
LCC 7.4	<p><i>The masterplan has evolved through an iterative process, however there appears in places an over reliance upon planting just to screen proposals, without full attention to the potential impact of screening on this landscape. The LVIA and appendices does not go into detail about the level of care to ensure the design of mitigation enhances the physical landscape, or views from receptors, other than just screening the development.</i></p>	<p>Careful consideration of the locations of any proposed planting has taken place, including offsets to maintain openness of views, using planting to screen security fencing, reinforcing existing vegetation and strategic planting to mitigate any potential effects of glint and glare on sensitive receptors. Measures other than planting have been considered in the design of the Scheme, for example, offsets have been included within the Scheme design to move panels further from properties as shown on Figure 2-4 Indicative Site Layout Plan [APP-033/3.2]. This includes an offset of panels and other infrastructure from residential properties bordering the site at Kexby Lane, therefore reducing visual effects from Viewpoint 10 as well reducing the adverse amenity effects from construction and operational activity. Planting is also proposed along the boundary of the panels in this location, to screen views from Viewpoint 10, whilst still maintaining the openness of the view with a large triangular offset area of species rich grassland adjacent to Viewpoint 10. The location of proposed planting also considered the retention of open views where appropriate along the Order Limits. The introduction of additional hedgerows and the reinforcement of existing hedgerows will enhance the physical landscape as it will repair existing hedgerows in poor condition and reconnects existing hedgerows with new hedgerows, which were removed over time to give way to larger fields for agricultural purposes.</p>
LCC 7.4	<p><i>The construction effects appear to be under-estimated in places, including visual impact and the impact of damage or loss of vegetation due to access requirements. However, this has been discussed with the developer team, and additional information on wider highways works and vegetation removal is being investigated to clarify this through the examination process. Recommend limiting vegetation loss along site boundaries for access or sight lines, or along construction access routes as this has the potential to change the character of the local landscape beyond the limits of the development.</i></p>	<p>As noted, further discussions have been held between the Applicant and LCC to consider access proposals in detail and identify opportunities to amend designs of accesses and visibility splays to reduce environmental impacts. Collaborative working with LCC Highways and Planning departments on this has identified appropriate actions for each access that maintain highways safety but minimise environmental effects. The assessment process, discussions and proposed changes are set out in the Access Updates and Cumulative Impact Technical Note submitted at Deadline 2. The changes made reduce the loss of vegetation compared to that assessed in the ES.</p>
LCC 7.5	<p><i>The cumulative change to the landscape will be considerable, and the combination of two or more sites has the potential to change the local landscape character at a scale that would be "of more than local</i></p>	<p>As set out in ES Chapter 10 [APP-019/3.1], the cumulative assessment identified moderate and significant effects on the landscape character due to the proximity and combined scale of the Scheme with the other three solar projects</p>



LIR Ref. Summary	Applicant response
<p><i>significance” or would be “in breach of recognised acceptability, legislation, policy or standards”. The cumulative impact of the four adjacent NSIP solar sites has the potential to effect the landscape at a regional scale through predominantly a change in land use: from arable to solar, creating an “energy landscape” as opposed to rural/agricultural one at present. This also has the potential to change the character from an agricultural landscape to that of an “energy” landscape when traveling through the area, and the sequential effects of multiple large scale solar sites, of which some are spread over extensive, fragmented redline boundaries, exacerbating the perception of being surrounded by solar development.</i></p>	<p>in the area. Whilst significant landscape cumulative effects are limited to moderate adverse landscape effects with Cottam, West Burton and Tillbridge, the Applicant and IGP have continued to work collaboratively in a number of areas to respond to continued dialogue with Lincolnshire County Council and in response to relevant representations and written questions received. This work comprises efforts to reduce the extent of visibility splay and associated vegetation removal (as set out in further detail in the Access Updates and Cumulative Impact Technical Note submitted at Deadline 2). These changes do not remove significant effects but do reduce vegetation removal. The removal of Access F: Marton Road E-W from the Scheme proposed at Deadline 2 enables advanced planting across an existing access, avoiding a potential significant landscape and visual effect in this location.</p> <p>ES Appendix 10-H Cumulative Effects <b>[APP-151/3.3]</b>, states that at the scale of County and District Landscape Character Areas all four solar projects will lie within the Trent Valley LCA. Although inter-visibility between the schemes will be limited and views in combination typically dominated by the closest solar farm, others are likely to be visible as a distant but discernible element in the view. The relatively flat nature of the landform (albeit rising to the Willingham ridgeline) is such that no elevated views of the footprint of the solar farms will be obtained. Experience of them as an element influencing landscape character will typically be in sequence through repeated views from footpaths or roads. The scale of addition to the landscape of the Trent Valley LCA assuming each scheme includes mitigation through hedgerow or other planting is such that solar farms will be a notable localised element rather than a key characteristic. Therefore, the Trent Valley LCA will not be defined by solar farms or become a “solar farm landscape” in which they are the defining characteristic. Locally at the scale of LLCA 06/LLCA 07 and LLCA 08 solar farms will represent a medium magnitude of change through addition and longevity such that effects on landscape character will be of moderate significance.</p>



LIR Ref.	Summary	Applicant response
LCC 7.5 Appendix 2	<p>LCC provided a 'Landscape and Visual Review' of the ES Landscape and Visual Impact Assessment. The majority of variations identified between ES Chapter 10 [APP-019/3.1], its associated documents, and the LCC review are within a normal range of professional opinion. The review is helpful and provides a clear guide to concerns of LCC. The following key points require a response, in addition to the answers provided above.</p> <ol style="list-style-type: none"> <li>1) LCC noted an error on Figures showing visual viewpoint numbering, whereby viewpoints 'LCC VP02 and LCC VP03 appear to be incorrectly located.</li> <li>2) <i>"The process of modelling Zones of Theoretical Visibility (ZTVs) is presented within Section 10.9 of Appendix 10-B. However, it is not explicit in the methodology to what parameters the proposals have been modelled to".</i></li> <li>3) It needs to be clarified if the visualisations are generated upon maximum parameters provided in Chapter 2: The <b>Scheme [APP-011/3.1]</b>.</li> <li>4) <i>"Section 10.1.6 states that un-compressed images are available on request, and would suggest these are made available if/when required for the examination to assist in clarity on some of the views".</i></li> <li>5) General comments stating that the reduction on visual effects in some locations is highly dependent upon establishment of advanced planting.</li> <li>6) <i>"Viewpoint LCC VP02: The view is closer to the Site than that agreed at the pre-application stage. If the view was further back from the Site, more of the development would be evident through the open boundary, and potentially effects likely be assessed as greater. The Image below is what was resented and discussed at meeting held on 10/11/2022 which would provide a clearer view".</i></li> </ol>	<ol style="list-style-type: none"> <li>1) The Applicant notes the minor errors on Figure 10-10 [APP-074/3.2] and Figure 10-11 [APP-075/3.2] in relation to the incorrect location indicated for viewpoints LCC VP02 and LCC VP03. For clarity, 'LCC VP02' is shown where 'LCC VP03' should be and vice versa. This error affected in total three figures namely, ES Figure 10-7 [APP-066/3.2], Figure 10-11 [APP-074/3.2] and Figure 10-12 [APP-075/3.2]. These figures have been corrected and are included in the Deadline 2 submission. The photomontages and other ES figures are unaffected by this error.</li> <li>2) ZTV Figures 10-09A to 10-10C [APP-068/3.2 to APP-073/3.2] as well as Figures 10-13 to 10-15 [APP-076/3.2 to APP-078/3.2] include a note beneath the legend, which outlines what baseline information and parameters were used to produce the ZTVs. For example, for Figure 10-10A [APP-071/3.2] it states the following: "1) Zone of Theoretical Visibility (ZTV) has been generated using Environment Agency digital terrain model which takes into account the screening effects of vegetation. Woodland from the Forestry Commission National Forestry Inventory (2021), with an assumed height of 10m have been incorporated into the DTM, to mask any 'false' visibility from the top of trees. 2) ZTV based upon points of the Solar Panel Areas at 3.5m height, the Substation at a 13m height and BESS at 4.5m, with an observer height of 1.5m".</li> <li>3) It can be confirmed that the ES photomontages are produced according to the Outline Design Principles [2.3] and present maximum allowed heights, and therefore a 'worst-case' scenario, which has informed the landscape and visual impact assessment.</li> <li>4) Un-compressed viewpoint photography and photomontages can be provided on request due to their file size. Un-compressed images provide increased sharpness, particularly in middle and long distance views. The Applicant will contact LCC directly regarding this request.</li> <li>5) The Outline Landscape and Ecology Management Plan (OLEMP) [APP-231/7.10 and as amended] provides information on the species mix and planting heights, as well as maintenance recommendations for new hedgerow plants, trees and shrubs. Advanced Planting along</li> </ol>



LIR Ref. Summary

Applicant response

Willingham Road and Marton Road utilises a considerable amount of existing hedgerows, which will be let to grow taller and which will be maintained at a higher height. However, strengthening and filling-in of gaps in those existing hedgerows will be undertaken as well as sections of new planting including along Kexby Lane / B1241 and Upton Road. The height of the proposed screen planting in areas of advanced planting will be reviewed and increased if required prior to the planting season in order to ensure the envisaged screening effects will be achieved following the completion of construction works.

- 6) It is correct that the image presented by LCC below shows more context of the overall viewpoint setting. The solar arrays will be located to the right of the trees in the centre-right, so the majority of this view shows a field where no solar arrays would be placed.



Therefore, the decision was taken to adjust the focus more on the field containing the solar arrays as shown in the ES photomontage below (refer to LCC VP02 included in Figure 10-18 [APP-087/3.2]. The visual effects will be similar in either view (LCC Image and ES Photomontage). The photomontage photography has also been taken with a 50mm lens, which narrows the focus similar to the focus of a human eye.

LIR Ref.	Summary	Applicant response
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WLDC 9.1.1 WLDC raise the following issues with the Landscape and Visual assessment and methodology:

- 1) Sensitivity of residential receptors are considered to be rated too low – generally all residential receptors are considered to be of high sensitivity but here some are reported as moderate. Possibly because of combination at viewpoints with less sensitive receptors like users of roads.
- 2) Future baseline seems slightly lacking in detail – information on proposals in local plans for housing (if any) should be reported.
- 3) Effect on workers in indoor locations not reported.
- 4) Cumulative effects section in chapter is lacking in detail.
- 5) Relationship to Glint and Glare chapter lacking detail.
- 6) the Landscape and Visual Amenity chapter of the ES (Doc. Ref. EN010131/APP/3.1) considers the cumulative effects of the other Cottam, Tillbridge and West Burton schemes. Whilst this is welcomed, the scale of the schemes will have a lasting impact on the landscape of character and setting for central Lincolnshire.



- 1) ES Appendix 10-G: Residential Visual Amenity Survey **[APP-150/3.3]**, states that *“the sensitivity of residential receptors was considered generally high as views from residences are considered principal views experienced daily”*. Viewpoints / Photomontages 1-23, C1-C5, and LCC 1 – LCC10 are located in publicly accessible locations along roads or PRowWs, some of which are located close to but not within the grounds of residential properties. In order to capture and assess effects on likely affected residential receptors, a separate assessment has been carried out (refer to above stated appendix).
- 2) The future baseline considers the general trend of development within the Order limits of the Scheme. ES Appendix 10-H Cumulative Effects **[APP-151/3.3]**, assesses the Scheme in combination with a range of other projects including local housing developments (as known at the time of the preparation of the ES) for example the 39 dwellings being constructed on land off Stow Park Road at the north-eastern fringe of Marton.
- 3) Comment noted.
- 4) The Applicant disagrees with this statement. WLDC does not specify what other details should have been included in the cumulative assessment.
- 5) Comment noted. ES Chapter 10 **[APP-019/3.1]**, states in its methodology that *“the magnitude of visual effects considers the size/scale of change in the view, geographical extent of the views influenced, the elements of the Scheme introduced and their integration into the existing view, and the duration for which receptors experience the view. In addition, consideration has been given to the conclusions of*



LIR Ref.	Summary	Applicant response
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		<p><i>the Glint &amp; Glare Assessment</i>” as included in ES Appendix 15-D <b>[APP-173 to 175/3.3]</b>. The landscape strategy as part of the embedded mitigation by design references parts of the proposals outlined in ES Figure 10-23 <b>[APP-095/3.2]</b> Outline Landscape Masterplan to the Glint &amp; Glare Assessment, in particular the advanced planting proposals. The advanced planting details, as a direct response to the findings of the Glint &amp; Glare Assessment, are indicated in ES Figure 10-22 Advanced Planting <b>[APP-094/3.2]</b> and are further described in the visual effects section in ES Chapter 10. The Applicant disagrees that there is a lack of detail.</p> <p>6) Comment noted. In addition to ES Chapter 10, it is recommended to review also ES Appendix 10-H Cumulative Effects <b>[APP-151/3.3]</b>, which provides a further detailed assessment of cumulative effects on the landscape character and visual amenity, which is summarised in Chapter 10.</p>
WLDC 9.9	<p>The construction of the scheme will have several major adverse impacts on the area of West Lindsey. It will have temporary major significant visual effects on three Local Landscape Character Areas (LLCA) which includes LLCA 02 – Ancient Woodland Ridge and LLCA 06 – Clay Farmlands, both of which are located within WLDC. These will be affected despite mitigation being implemented.</p>	<p>Comment noted. The Applicant has made every effort to mitigate effects wherever practicable. Despite this, some significant effects will remain; however, construction effects are considered short-term, temporary effects. The number of effects is considered low given the scale of the Scheme and its benefits.</p>
WLDC 9.10	<p>WLDC identify the following negative impacts during construction:</p> <ol style="list-style-type: none"> <li>1) There will be several visual receptors which will suffer from major significant effects with noticeable changes in the composition of the views.</li> <li>2) Localised excavations and topsoil stripping/temporary storage.</li> <li>3) The introduction of temporary compounds, lighting, stockpiles, machinery, haul rods, associated fencing and signage which will temporarily increase the extent of built development.</li> </ol>	<ol style="list-style-type: none"> <li>1) ES Appendix 10-G: Residential Visual Amenity Survey <b>[APP-150/3.3]</b>, describes visual effects on residential properties due to their near distance to the Scheme, assessing the likelihood of these properties / receptors experiencing significant visual effects.</li> <li>2) Comment noted.</li> <li>3) Construction effects on landscape character and visual amenity including a range of visual receptors have been assessed in ES Chapter 10 <b>[APP-019/3.1]</b>.</li> <li>4) Comment noted. There will be an increase in traffic during the construction phase as a result of the Scheme; however, this is not considered to be significant, as per the findings set out in ES Chapter 13</li> </ol>



LIR Ref.	Summary	Applicant response
	<ul style="list-style-type: none"> <li>4) General construction activity, traffic and operations and the movement of plant and machinery which will increase the level of activity across the Order limits.</li> <li>5) Whilst the effects during construction are considered temporary, these could last up to 36 months.</li> </ul>	<p><b>[APP-022/3.1]</b>. A Framework Construction Traffic Management Plan (CTMP) has been developed and is provided as ES Volume 3: Appendix 13.E <b>[APP-167 to 168/3.3 and as amended]</b>. The CTMP contains mitigation to avoid and/or reduce impacts, relating to construction traffic including the delivery of materials during construction.</p> <p>5) ES Chapter 5 <b>[APP-014/3.1]</b>, states that construction will require an estimated 24-36 months.</p>
<p>WLDC 9.16</p>	<p>During the operational phase of the solar park, it will have several major adverse impacts on the area of West Lindsey. It will have major significant visual effects on three LLCA which includes LLCA 02 – Ancient Woodland Ridge and LLCA 06 – Clay Farmlands, both of which are located within WLDC. These will be affected in both This demonstrates the mitigation does not minimise the impacts of the schemes and will have a long-term impact on the area.</p>	<p>ES Appendix 10-D Landscape Assessment <b>[APP-147/3.3]</b>, acknowledges that LLCA 02 – Ancient Woodland Ridge and sections of LLCA06 – Clay Farmlands will experience major to moderate and therefore significant landscape effects. Large sections of LLCA 02 will be occupied by the Scheme. While high quality physical features within the LLCA, such as the ancient woodland, will be protected and retained, the introduction of the scheme will result in a large alteration across an extensive area of the LLCA. Sections of LLCA 06 will also be occupied by the Scheme. Many key features will be maintained, including the plateau landform and field boundaries. However, the Scheme will result in the loss of some key characteristics, namely agricultural character and a reduction in a sense of openness given the change of land use and the introduction of new built features in the landscape. The landscape mitigation proposed for both LLCA’s will help integrating the Scheme into its setting. This will be achieved by improving existing hedgerows and the planting of new hedgerows, some of which are interspersed with trees, to enhance the local hedgerow network. The establishment of advanced planting in selected locations will also help to integrate the Scheme from the start of construction works. The exclusion of solar panels between Gate Burton estate and Burton Wood, the offset of panels from roads and existing hedgerows as well as the exclusion of panels from areas close to residential properties will reduce landscape effects on these LLCA’s locally as well as visual effects.</p>
<p>WLDC 9.17</p>	<p>WLDC state during operation there will be moderate significant effects on several visual receptors in both the short and long term (1 and 15 year assessment).</p>	<p>ES Chapter 10 <b>[APP-019/3.1]</b>, assesses and summarises visual effects and their significance on a range of receptors. ES Appendix 10-F Visual Assessment <b>[APP-149/3.3]</b>, includes the visual assessment of Photomontages 1-23, C1-C5 and LCC1 – LCC10.</p>



LIR Ref.	Summary	Applicant response
WLDC 9.19 to 9.21	<p>WLDC identify the following negative impacts during decommissioning:</p> <ol style="list-style-type: none"> <li>1) There will be major significant effects on LLCA 02 – Ancient Woodland Ridge within WLDC.</li> <li>2) There will also be major significant effects on visual receptors across the Scheme.</li> <li>3) Whilst the effects during decommissioning are considered temporary, these could last up to 48 months.</li> </ol>	<ol style="list-style-type: none"> <li>1) Refer to response 9.16 above.</li> <li>2) ES Chapter 10 <b>[APP-019/3.1]</b>, summarises significant residual landscape and visual effects on a range of receptors and their location.</li> <li>3) ES Chapter 2 <b>[APP-011/3.1]</b>, states that decommissioning is expected to take between 24-48 months and would be undertaken in phases.</li> </ol>
BDC p.10	<p>Consideration should be given to the Landscape impact including views from high points within Bassetlaw, both alongside the river and from further away (e.g. Sturton le Steeple, South Leverton, etc), especially having regard to vistas from both roads and public footpaths.</p> <p>Similarly, views of Bassetlaw assets from the east side of the river should also be fully assessed (e.g. Sturton le Steeple church spire). As we have recently found with several other solar farm proposals in Bassetlaw recently, those key views might extend several miles and be less obvious until seen on the ground.</p>	<p>ES Chapter 10 <b>[APP-019/3.1]</b> assesses the likelihood of landscape and visual effects west of the River Trent including locations along the river, namely at the embankment at Littleborough (refer to Photomontage LCC10 included in ES Figure 10-18 <b>[APP-087 to 090/3.2]</b>) as well as from Littleborough Road (refer to Photomontage 14 included in ES Figure 10-18 <b>[APP-087 to 090/3.2]</b>). Neither of these views will experience significant visual effects. Visual effects at operation will be neutral and result in a no change situation when compared to the existing situation as stated in ES Appendix 10-F Visual Assessment <b>[APP-149/3.3]</b>.</p> <p>Areas west of the River Trent including Sturton le Steeple, North Leverton with Hablesthorpe, South Leverton, Treswell and Rampton have also been assessed during site surveys. ES Chapter 10 <b>[APP-019/3.1]</b> states that during the construction stage “<i>areas west of the River Trent are very sparsely populated until reaching Sturton le Steeple, Fenton and Hablesthorpe. Sections of the construction compound and access road will be discernible in background views due to their location on elevated ground west of the low ridge at Gate Burton. Available distant views will be filtered by considerable intervening vegetation in an overall wide panorama. Residences at Littleborough will also benefit from substantial and mature intervening vegetation close to the residences, along the embankments of the River Trent and uphill towards the A156, which will screen open views towards the entrance to the Scheme along the A156 and the construction compound. Visual effects are estimated to range from very low to low and their significance will range from negligible – none and neutral</i>”.</p> <p>Landscape Effects in LLCA 3, LLCA10 – LLCA 13 are considered not significant at operation.</p>



LIR Ref.	Summary	Applicant response
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Visual effects during operation are not considered significant and are negligible to neutral due to intervening vegetation and landform as well as due to the planned landscape reinstatement proposals within the Grid Connection Corridor. Refer to response above. Views west from the eastern side of the River Trent as well as from along the A156 will remain unchanged at operation as the Scheme is located further east and out of view. Construction works within the Grid Connection Corridor will be temporarily discernible during the construction phase in views from the River Trent flood protection embankments to the east and west.

### Public Rights of Way (PRoWs)

LCC 9.2	<i>There are a number of Public Rights of Way in and around the Order limits and whilst these are to be retained and ongoing access maintained, albeit with some temporary diversion, there would nonetheless be a negative impact to the users of the recreational value of various public rights of way as a result of the development with a change of experience from that of woodland and open fields to a more industrial landscape when travelling through the solar park with its associated infrastructure creating a feeling of enclosure rather than the current open landscape views.</i>	Effects on views from PRoWs as a result of construction, operation and decommissioning of the Scheme are set out in Chapter 10 <b>[APP-019/3.1]</b> . Adverse visual effects during construction and decommissioning (some of which are significant) would be experienced from PRoW proximal to the Solar and Energy Storage Park and Grid Connection Route. During Operation, once new and strengthened hedgerows and tree and shrub belt planting has reached semi-maturity, this will screen or filter the Scheme in the majority of views; however, a small number of significant effects remain at Year 15 for the Scheme.  Views from PRoWs along and across the Grid Connection Corridor and the wider PRoW network will experience no significant effects during operation.
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WLDC 10.16	<i>There are a number of PRoW in and around the Order limits and whilst these are to be retained and ongoing access maintained, albeit with some temporary diversion, there would nonetheless be a negative impact to the users of the recreational value of various public rights of way as a result of the development with a change of experience from that of woodland and open fields to a more industrial landscape when travelling through the solar park with its associated infrastructure creating a feeling of enclosure rather than the current open landscape views.</i>	See response to LCC 9.2 above.
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LIR Ref.	Summary	Applicant response
WLDC 10.17	<i>The Site intersects a small section of a PRoW at Knaith Park. Although the intersection is slight, construction vehicles will cross the PRoW to access a field within the north western portion of the Site. The PRoW will be managed throughout the construction phase to ensure that routes can continue to be used as safely as possible.</i>	<p>The details in the comment are correct. As stated within the Outline Public Right of Way Management Plan <b>[APP-229/7.8]</b> PRoW LL Knai 44/2 will be carefully managed to allow all users to safely pass through this area by:</p> <ul style="list-style-type: none"> <li>• Providing manned controls at the crossing point (including marshals/banksmen and gates) when vehicles are crossing the PRoW, with a default priority that construction traffic will give-way to other users</li> <li>• Providing advanced signage to warn users of the potential presence of construction vehicles and PRoW users; and</li> <li>• Maximising visibility between construction vehicles and other users at the crossing point</li> </ul>

### Flood Risk, Drainage and Surface Water

LCC 10.3	<i>More detail would be needed on areas of the site which are proposed to be made impermeable and this could be captured by an appropriate requirement. The Draft DCO includes an appropriate requirement to ensure such details are provided.</i>	<p>An Outline Drainage Strategy is provided in Appendix 9-C <b>[APP-139 to 141/3.3]</b>. Surface water runoff across the Solar and Energy Storage Park will be discharged to ground through the use of sustainable drainage systems (SuDS) to provide attenuation (both in terms of storage capacity and water quality treatment). With the measures set out in the Outline Drainage Strategy in place, the Flood Risk Assessment (provided in Appendix 9-D of the ES <b>[APP-142/3.3]</b>) concludes that there would be no increase in flooding from any source. The Outline Drainage Strategy is secured through the draft DCO.</p>
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### Minerals and Waste

LCC 11.5	<i>Currently there are no waste facilities to process discarded solar infrastructure as it is replaced during the lifetime of the development and at the decommissioning stage. When combined with the other solar projects in the County that may be granted DCO in the next 12 months this will present an issue that will need additional facilities to ensure these products are sustainably disposed of. Therefore, it will be necessary for a requirement to be imposed on any DCO permitted that requires a waste management strategy to be submitted which demonstrates the expected quantity of solar infrastructure that will be discarded during the operational and decommissioning phases and</i>	<p>The Waste and Recycling Section within ES Chapter 15 <b>[APP-024/3.1]</b> confirms the design life and replacement frequency for the main components of the Scheme, including the panels and batteries. It anticipated that replacement of the modules will be considered after 30 years of operation. Recycling routes are generally available for these materials at present. When the time comes for these elements to be replaced, several decades into the future, it is likely that there will be greater opportunities for recycling, not least because the market will have expanded to meet demand as PV installations increase.</p> <p>The Framework OEMP <b>[7.4]</b> submitted at Deadline 2 has been updated to include a commitment to develop an Operational Waste Management Plan.</p>
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LIR Ref.	Summary	Applicant response
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*the arrangements to be put in to ensure adequate facilities are available to sustainably dispose/recycle these items in the future.*

NCC 2.23 *The northern cabling route option, the buffer zone for which, runs through or at least very close to the permitted sand and gravel site at Sturton Le Steeple quarry (1/46/06/00014/). As this site is not presently active, it may not have been picked up as part of the initial scoping exercise. NCC would draw attention to Adopted Minerals Local Plan March 2021 (Policy MP2c) and Policies Map Inset 4*

As stated within the Scoping Opinion Response Table [APP-111/3.3] a discussion on the need for a Minerals Safeguarding Assessment (MSA) was held between the Applicant and Lincolnshire County Council and Nottinghamshire County Council in May 2022. It was agreed that a MSA was not necessary as a standalone DCO Application document due to further information provided by the Applicant on the reduced and narrowed routing of the Grid Connection Corridor which passes through a MSA for sand and gravel. Further information and consideration of mineral safeguarding is provided in the Planning, Design and Access Statement [APP-005 to 006/2.2].

Socio-economics and Land Use		
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LCC 13.2 *Whilst the Council acknowledges that the GBS has been designed to remove fields that predominately comprise ALC Grade 3a, BMV land remains within the application site. The vast majority of the land proposed for the Solar PV site comprises grade 3b. However, at least 20% of the principal site and 50% of the corridor site is Grade 3a land which is classed as BMV. The proposed development is likely to have a cumulative or defined negative impact that will result in the loss of agricultural production in the development area generally and/or the permanent loss of production from mostly medium quality agricultural land.*

**Solar and Energy Storage Park**

In respect of proposed Solar and Energy Storage Park, Chapter 12 of the ES [APP-021/3.1] sets out that 12% of the land falls into ALC subgrade 3a, which is BMV quality. 1% of land within the Solar and Energy Storage Park is Grade 3a land but will not be taken out of agricultural use, meaning 11% of the site is Grade 3a land affected reversibly by the Scheme. The ALC survey within the Solar and Energy Storage Park is based on site based soil surveys and is considered accurate. It is not correct that at least 20% of the Solar and Energy Storage site is BMV land.

As set out in Chapter 12 [APP-021/3.1], approximately 2 ha is expected to be permanently lost as a worst case scenario. There will be a change of agricultural enterprise from mostly arable cropping or bioenergy cropping to grassland, which can be available for sheep grazing.

In respect of the "loss" of BMV land, within the Solar and Energy Storage Area the area is 2 ha, which is a minor impact. This is a worst case scenario as in reality it is likely that the battery storage and substation area can also be returned to





LIR Ref. Summary

Applicant response

agricultural land following decommissioning. Policy S67 is mostly concerned with the loss of BMV resources, which in this case are minor.

The introductory text to S67 sets out that proposals should protect BMV agricultural land "**so as to protect opportunities for food production and the continuance of the agricultural economy**". BMV land is not lost, and continued agricultural use is possible through grazing. Future alternative enterprises can resume after decommissioning. There is no planning policy nor Government requirement or incentive for agricultural land to be used for food production, or at any level of intensity, nor for any particular type of enterprise. A farmer could grow grass, intensively or as biodiverse unintensified hay meadows, or grow arable crops, intensively or organically, or use the land for bio-energy crops or for agri-environmental benefit. Therefore, the reduced production as a result of the proposals does not harm national policy, nor S67.

In March 2023, the Government published Powering Up Britain: Energy Security Plan, which is clear on the Government's stance on the suitability of agricultural land for solar development. The document states on page 48 (our emphasis):

*'Ground-mounted solar is one of the cheapest forms of electricity generation and is readily deployable at scale. The Government seeks large scale ground-mount solar deployment Powering Up Britain – Energy Security Plan 38 across the UK, looking for development mainly on brownfield, industrial **and low and medium grade agricultural land. Solar and farming can be complementary, supporting each other financially, environmentally and through shared use of land. We consider that meeting energy security and climate change goals is urgent and of critical importance to the country, and that these goals can be achieved together with maintaining food security for the UK.'***

In this strategy, the Government makes it clear that low and medium agricultural land is one of the locations the government is looking for, for large scale ground mounted solar development. The Solar and Energy Storage Park meets this



LIR Ref. Summary	Applicant response
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criterion and is in a supported location. The Government also makes it clear that ground mounted solar can be complementary to farming.

Both national policy and S67 reference the use of BMV land. Neither references any perceived harm as a result of "**the production from mostly medium quality agricultural land**" (i.e. non-BMV land), as referenced in LCC 13.2.

**Cable Corridor**

The ALC of the cable route corridor has been estimated. The corridor is relatively wide to allow for finalisation of the route corridor, particularly cognisant of the shared corridor areas and the need to finalise all corridors within this area. Therefore, the amount of agricultural land that will be disturbed within the corridor will be significantly less than the area recorded in the ES. As set out in the ES Appendix 2-B "Grid Connection Construction Method Statement", section 1.1.15 **[APP-114/3.3 and as amended]**, the worst case scenario is a 25m width construction corridor and a 1.42m wide trench.

**Cumulative Impacts**

In terms of the Scheme having a negative cumulative impact on BMV with other Schemes an assessment of the maximum impact that all existing and proposed solar schemes (both Town and Country Planning and Development Consent Order) in Lincolnshire may have on best and most versatile agricultural land has been undertaken. This assessment is presented in a Technical Note submitted at Deadline 2 **[8.11]**. This Technical Note demonstrates that even if all solar schemes considered were consented and constructed, they would still occupy just over 1% of the BMV land in Lincolnshire. Given that no DCO projects except Little Crow are yet consented in Lincolnshire and the majority are in the early stages of development, in reality far fewer projects than assessed in the Technical Note may be developed. As Schemes develop they tend to reduce in size and particularly reduce areas of BMV land in line with policy, so this figure is also likely to be less than predicted for each scheme that is constructed. The Scheme boundaries in places also include grid connection corridors where agricultural uses will continue. There is also the potential for agricultural use to

LIR Ref.	Summary	Applicant response
LCC 13.4	<p><i>Cable route assessment - it is estimated that 50+% of the cable route will be BMV. However, irrespective of the land quality there will be issues of concern to farmers and landowners including: -</i></p> <ul style="list-style-type: none"><li>• Land drainage</li><li>• Weed burden</li><li>• Biosecurity for plant diseases</li><li>• Timeliness of soil stripping and storage.</li></ul> <p><i>These matters will need to be addressed if the scheme is to proceed.</i></p>	<p>continue on each site alongside solar development. Therefore, even the figure of just over 1% is likely to be a significant overestimate.</p> <p>As stated in the Appendix 12-C Agricultural Land Classification Report [APP-162/3.3] it is estimated that 43% of land within the grid connection corridor is BMV land. In terms of land drainage, weed burden, biosecurity and timeliness of soil stripping and storage there are measures included within the Outline Soil Management Plan [REP-030/7.12] to control these aspects.</p>
LCC 13.5	<p>During the construction phase there will be significant damage to soil structure particularly on heavy clay soils. There is inevitably a lot of trafficking of vehicles on the land to erect the panels and if this work is undertaken when soils are wet, there can be significant damage. Much of this damage can be remedied post construction, but not all and it is possible that long term drainage issues occur on the site due to the construction.</p>	<p>It is not accepted that during construction there will be significant damage to soil structure. The machinery involved in the installation of the Solar PV Arrays is generally small, usually tracked, and by following the Outline Soil Management Plan [REP-030/7.12] will normally only be working on the land when soil conditions are suitable for being trafficked.</p> <p>An example of machinery installing solar panel frameworks is shown below.</p>



LIR Ref. Summary

Applicant response

An example of how limited the damage to soils can be, this example being a winter installation but on sandy soils, is shown below.



The panels are usually carried out to the panel area by agricultural-sized tractors and trailers, and will not result in significant damage to soil structure, as per the example below.





LIR Ref.	Summary	Applicant response
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The installation of cables will involve a narrow trench, but with the soils reinserted will not result in significant damage to soils. Heavy clay soils, as per the example below, are not damaged if works are carried out when soil conditions are suitable.



There are measures included within the Outline Soil Management Plan **[REP-030/7.12]** to prevent long term drainage issues on site post construction such as improvements via soil bursting in the event that soils become compacted. Reinstatement of the land and return of the soils in a like for like condition is subject to the controls and commitments set out within the Outline Soil Management Plan, secured via Requirement 17.

LCC 13.6 *During the construction phase many of the areas will suffer soil and water issues. To address this it is recommended that a requirement is imposed on any DCO granted to ensure a Soil Management Plan, both for the site and the cable route is submitted and approved.*

There are measures included within the Outline Soil Management Plan **[REP-030/7.12]** to prevent water and soil issues post construction. Reinstatement of the land and return of the soils in a like for like condition is subject to the controls and commitments set out within the Outline Soil Management Plan (see “Soil Restoration (c)” of that plan), which is secured via Requirement 17.

LCC 13.7 *The loss of any agricultural land can impact upon arable food production with knock-on effects in terms of the associated food production economy and to farm enterprises affected by the development. The Council is of the view that the cumulative negative impacts of the loss of arable agricultural land places pressure on the function of this important part of the local and wider Lincolnshire rural*

Comment noted. It is agreed that some agricultural land will be taken out of arable production temporarily for 60 years. Land affected permanently by the development (such as construction of the substation) will be limited to small areas. ES Chapter 12 **[APP-021/3.1]** includes a breakdown of permanent and temporary losses for the different types of land use within the proposed development (including the Grid Connection Corridor), broken down by ALC



LIR Ref.	Summary	Applicant response
	<p><i>economy as well as raising questions more generally regarding food security and the carbon footprint impacts as a result of the need to import food due to the consequential changes in land-use. In the case of the GBS whilst the time proposed is for a specified period for a period of 60 years there is an acknowledgement in the application documents that this could be extended beyond the 60 year permission sought. In reality as technology improves the solar infrastructure will be in place for longer than this and therefore the impacts are also much greater as potentially the GBS would result in the permanent loss of the agricultural land and so should not be seen as reversible.</i></p>	<p>area (ha) and percentage. Further detail is provided in the Further Information on Agricultural Land Technical Note submitted at Deadline 2 [8.11]. It should be noted that a large proportion of the land affected for the Gate Burton Energy Park is farmed for crops used to produce bioethanol or biomass and is not actually reaching the food chain.</p> <p>Reference is made in the NPS EN-3 and policy S67, to protecting against loss of BMV, and to recognising the economic and the benefits of BMV. In respect of food production, there is no policy or initiative or requirement for agricultural land to be used for food production. There is also no policy requiring a justification for the use of poorer quality land (subgrades 3b, 4 and 5).</p> <p>If LCC's concern is related to the use of BMV land for food production, the implications of the use of BMV land for the Scheme are limited.</p> <p>In respect of the loss of yield, the following analysis provides an estimation of the reduction of yield if it was assumed that the BMV land within the site is retained for agriculture and non-BMV land is utilised elsewhere for the solar panels displaced. Therefore, the reduction of yield should poorer quality land be used in preference is the difference between the yields of BMV land and non-BMV land, rather than the difference between a crop and no crop.</p> <p>Taking wheat as the highest yielding arable cereal crop and taking high yields to represent subgrade 3a and average yields to represent subgrade 3b, with figures from the Pocketbook for Farm Management (2023), the difference in yield is between 10.0t/ha and 8.6t/ha. Taking that incremental difference of 1.4t/ha, and applying it to the full 80.4 ha of BMV within the site, that would be a reduction of production of 112 tonnes (80.4 ha x 1.4t/ha = 112.5t).</p> <p>In reality the incremental increase is likely to be less than this, but this is a worst case analysis, for the purposes of attempting to quantify. The implications of using non-BMV land in preference.</p>



LIR Ref.	Summary	Applicant response
LCC 13.9	<i>In summary, given the overall scale of the project and the loss of agricultural land, a significant proportion of which is classed as BMV, the Council considers this loss to represent a significant negative impact not only within the local area but also when considered in combination with the loss of land from other potential NSIP scale solar developments that are also being promoted and considered across the County. A county-level alternative assessment area should be applied which as a minimum should consider scope for connection into the National Grid at the locations proposed by the registered NSIP solar projects locally, and with specific consideration of agricultural land impacts.</i>	<p>To put that quantum (112t) in context, in 2022 the UK produced 15.5 million tonnes of wheat, a significant part of the just over 24 million tonnes of cereals produced in the UK (Defra "Cereal and Oilseed production in the United Kingdom 2022", published 21 December 2022).</p> <p>In terms of the time limit of the DCO, the Applicant has updated the draft DCO at Deadline 1 to amend Requirement 19 to ensure that decommissioning must take place no later than 60 years following the date of final commissioning of the authorised development. Therefore, the Scheme cannot continue indefinitely and is therefore temporary. The Scheme is also reversible after its lifetime and in that respect is a long term, temporary use.</p> <p>The Solar Energy Storage Park includes 80.4 ha of land of BMV quality. This represents 12% of the total agricultural land within the Solar and Energy Storage Park.</p> <p>Only an estimated 2 ha of this could be permanently lost as a result of the Scheme.</p> <p>Lincolnshire as a county includes of the order of 566,200 ha of agricultural land, see the "Further Information on Agricultural Land Technical Note" [8.11].</p> <p>These figures were taken from the provisional ALC maps originally from the 1970's, which whilst reprinted have not been updated since. Based on those figures and updated to reflect Natural England's estimate that under the ALC Revised Guidelines (1988) 42% of agricultural land in England is of BMV quality, there is an estimated 402,900 ha of BMV within Lincolnshire county.</p> <p>Defra's Land use Statistics for 2021 record the total farmed area in Lincolnshire as 488,915 ha (Defra, June 2022).</p> <p>The amount of land within the Solar and Energy Storage Park that is of BMV quality is a negligible amount of the county's land resource, including of BMV</p>



LIR Ref. Summary	Applicant response
<p>LCC LIR Appendix 1 The following headings should be included in the Soil Management Plan, both for the site and the cable route:</p> <ul style="list-style-type: none"> <li>• Site preparation;</li> <li>• Import of construction materials, plant and equipment to Site;</li> <li>• Establishment of Site construction compounds and welfare facilities;</li> <li>• Cable installation;</li> <li>• Temporary construction compounds;</li> <li>• Trenching in sections</li> <li>• Upgrading existing tracks and construction of new access roads within the Site;</li> <li>• The upgrade or construction of crossing points (bridges /culverts) at drainage ditches within the Site;</li> <li>• Appropriate storage and capping of soil;</li> <li>• Appropriate construction drainage;</li> <li>• Sectionalised approach of duct installation;</li> <li>• Excavation and installation of jointing pits;</li> <li>• Cable pulling;</li> <li>• Testing and commissioning;</li> <li>• Site reinstatement (i.e. returning any land used during construction, for temporary purposes, back to its previous condition); and</li> <li>• Use of borrow pits</li> </ul>	<p>(where, as analysed in the Cumulative Impact report, an estimated 71.2% of land is of BMV quality).</p> <p>A county-wide assessment is also included which takes account of NSIP and other solar proposals. The collective amount of permanent BMV loss involved in the proposals is less than 8 ha, which is 0.0012% of BMV land in the county.</p> <p>The Outline Soil Management Plan <b>[APP-233/7.12]</b> includes all of the aspects mentioned in the comment. As stated in the document prior to commencement of works, a Soil Management Plan (SMP) will be prepared in accordance with this Outline Soil Management Plan (Outline SMP). The SMP will detail the management of soil on areas such as temporary working compounds, temporary and permanent tracks and sites of temporary and permanent buildings. The SMP will include details of topsoil and subsoil stripping depths, how and where soils will be stored, conditions under which soil stripping and reinstatement will be carried out and how the reinstatement will be carried out.</p>





LIR Ref.	Summary	Applicant response
LCC LIR Appendix 1	<p><i>As set out above the ALC report is not fully in line with the MAFF 1988 guidance, which recommends auger borings at 1 hectare intervals, and soil pits dug in representative soils types. The report is more in line with a reconnaissance survey.</i></p> <p><i>However, the results are not out of keeping with the expected finding given that the provisional map is showing Grade 3 land and the Predictive BMV map suggest only moderate amounts of BMV. The actual BMV findings are less than the expected findings, but this still falls within the normal range.</i></p>	<p>The Applicant disagrees that the ALC report is not fully in line with the MAFF 1988 guidance. A semi-detailed soil survey was carried out in accordance with the MAFF (1988) guidelines which is the current methodology for ALC within the Solar and Energy Storage Park. Some 307 auger samples were taken over the 652 ha site. As it is common ground that ALC grade will not be changed, this provides a suitable level of detail. See the revised Statement of Common Ground <b>[REP-009 to 010/4.3C]</b> which confirms that Natural England are content with the sampling strategy.</p>
LCC LIR Appendix 1	<p><i>There is no mention of the impact on farm holdings or land structures affected by the proposal. From local knowledge there are 4 main landowners, or occupiers, but the report does not outline the impact on any of these occupiers or the nature of the tenure of their holdings.</i></p> <p><i>In considering the impact on the overall farming enterprises both locally and across the District or County, it may be necessary to seek additional information on the impact on the individual farms themselves. This might include the loss of agri-environmental schemes, miscanthus production, as well as the more normal range of mainly arable crops and income. There should be some discussion about the impact on farm viability and profitability following the implementation of the proposed scheme.</i></p>	<p>See response to WLDC 10.1 below.</p>
WLDC 7.1	<p>WLDC make the following comments in respect of the relevant Chapter of the Environmental Statement:</p> <ol style="list-style-type: none"> <li>1) The agricultural components of the ES do not follow any published and established methodology.</li> <li>2) The level of soil detail is insufficient for an ALC assessment and production of a Soil Handling and Management Plan.</li> <li>3) A survey density of one bore per hectare should be agreed with Natural England's Soil Specialist.</li> </ol>	<ol style="list-style-type: none"> <li>1) The Applicant disagrees that the assessment of impacts on agricultural land arising from the Scheme set out within ES Chapter 12 <b>[APP-021/3.1]</b> do not follow an established methodology. The approach was informed by Natural England's guidance note Technical Information Note 049 -Agricultural Land Classification. The thresholds for the magnitude of impact adopted in the assessment were based on a threshold of the permanent change of 20ha of BMV agricultural land. As this is the area of BMV change that triggers a requirement to consult with Natural England, it implies that this is also the point at which the</li> </ol>



LIR Ref. Summary	Applicant response
<p>4) A sensitivity/resilience assessment should be provided in the ES, given the preponderance of heavy, wet soils.</p> <p>5) The Agricultural Circumstances Report does not reflect the potential socio-economic impact and land use impacts on the affected farms</p> <p>6) PINS require all affected agricultural land should have an ALC survey. However, only desk top assessments were undertaken for 13.3 ha of land within the solar farm itself and for the whole of the grid connection corridor, so this is a non-compliance with PINS.</p> <p>7) There is no assessment of impact on individual farms and displacement of tenants</p> <p>8) Mitigation proposals are satisfactory but would benefit from a soil sensitivity/resilience assessment to inform the Soil Handling and Management Plan.</p>	<p>change is no longer considered to be 'not significant'. This approach was agreed with Natural England on another DCO scheme (Longfield) and was therefore considered appropriate to use in the assessment of impacts on agricultural land as presented in the ES. Longfield Solar Farm DCO was made in June 2023.</p> <p>2) The Applicant disagrees that there is insufficient detail for an ALC assessment and production of a Soil Handling Management Plan. A semi-detailed soil survey was carried out in accordance with the MAFF (1988) guidelines which is the current methodology for ALC within the Solar and Energy Storage Park. Some 307 auger samples were taken over the 652 ha site. As it is common ground that ALC grade will not be changed, this provides a suitable level of detail. As per subsequent discussions with Natural England (see revised Statement of Common Ground <b>[REP-009 to 010/4.3C]</b>) soil sampling will also be undertaken within the grid connection corridor. This commitment is also included within the updated Framework CEMP that was submitted at Deadline 1 <b>[REP-026/7.3]</b>.</p> <p>3) See Natural England SoCG submitted at Deadline 1 <b>[REP-009/4.3C]</b> which confirms that Natural England are content that the ALC survey and grading has been carried out according to the published ALC Guidelines at a level of detail adequate for the assessment process. We are currently seeking signatures for this SoCG and hope to submit a final version at Deadline 3.</p> <p>4) The effect on soils will be limited provided that good practice is followed. The principles are set out in the OSMP <b>[REP-030/7.12]</b> submitted at Deadline 1. The effect on clayey soils is recognised, and the construction programme will reflect the workability constraints of the soils.</p> <p>5) The loss of existing jobs within the site is assessed within ES Chapter 12 <b>[APP-160/3.1]</b> which explains that 1.5 existing jobs will be lost as a result of the Scheme, however during the operational phase there will be a gross number of 14 FTE jobs generated by the Scheme once operational. The effect on farms is addressed under WLDC 10.1.</p>



LIR Ref.	Summary	Applicant response
WLDC 7.1	<i>The lack of an established methodology in the ES underestimates the effect of loss of agricultural land to the Scheme, compared with if the methodologies of IEMA or DMRB were applied. Lack of assessment of the effects of the Scheme on agricultural holdings is a significant shortcoming in the ES.</i>	<p>The Applicant disagrees that the assessment of impacts on agricultural land arising from the Scheme set out within ES Chapter 12 [APP-021/3.1] do not follow an established methodology. Principally the approach was informed by Natural England’s guidance note Technical Information Note 049 -Agricultural Land Classification. The thresholds for the magnitude of impact adopted in the assessment were based on a threshold of the permanent change of 20ha of BMV agricultural land. As this is the area of BMV change that triggers a requirement to consult with Natural England, it implies that this is also the point at which the change is no longer considered to be ‘not significant’. This approach was agreed with Natural England on another DCO scheme (Longfield) and was therefore considered appropriate to use in the assessment of impacts on agricultural land as presented in the ES.</p>
WLDC 7.1	<i>Best and Most Versatile land (BMV) in Volume 3, Appendix 12-C: Agricultural Land Classification Report (Doc. Ref. EN010131/APP/3.3) is separated out from grade 3a land. As set out below, national and local policy sets out that grade 3a land is BMV land. This means 6.8 hectares of land is classed as BMV rather than grade 80.4 hectares for the solar array element of the scheme.</i>	<p>Subgrade 3a "good" quality land falls within the definition of BMV. This is recognised in paragraph 12.7.7 of Chapter 12 of the ES [APP-021/3.1]. The ES assumes 80.4 ha of BMV within the Solar and Energy Storage Park. The 6.8 ha of estimated subgrade 3a is not proposed for solar panels (Chapter 12 para 12.7.8 refers).</p>



LIR Ref.	Summary	Applicant response
WLDC 7.1	<p><i>Whilst there are benefits associated with the proposal, there is a harm through allowing the development, through the loss of BMV over the lifetime of the development; particularly when considering the impact of the other proposed solar developments in WLDC.</i></p>	<p>The concern is that there is harm "<b>through the loss of BMV over the lifetime of the development</b>", and that cumulative harm could exacerbate this. The concern implicitly recognises that the BMV land is not "lost", therefore the concern can only relate to the reduction in agricultural intensity of farming BMV land.</p> <p>The BMV land accounts for 73.6 ha within the area proposed for panels, battery storage and the substation, which is 11% of the site.</p> <p>The concern does not relate the "harm" to any planning policy. There is no planning policy that requires agricultural land to be farmed, or for any type of crop or intensity. This is recognised by WLDC at LIR Ref 10.1.</p> <p>There is no planning policy nor Government requirement or incentive for agricultural land to be used for food production, or at any level of intensity, nor for any enterprise. A farmer could grow grass, intensively or as biodiverse un-intensive hay meadows, or grow arable crops, intensively or organically, or use the land for bio-energy crops or for agri-environmental benefit. Therefore, the reduced production as a result of the proposals does not harm national policy, nor S67 of the Local Plan.</p> <p>WLDC's concern is related to the use of BMV land for food production. The implications of the use of BMV land for the Scheme are limited.</p> <p>In respect of the loss of yield, the following analysis provides an estimation of the reduction of yield if it was assumed that the BMV land within the site is retained for agriculture and non-BMV land is utilised elsewhere for the solar panels displaced. Therefore, the reduction of yield should poorer quality land be used in preference is the difference between the yields of BMV land and non-BMV land, rather than the difference between a crop and no crop.</p> <p>Taking wheat as the highest yielding arable cereal crop and taking high yields to represent subgrade 3a and average yields to represent subgrade 3b, with figures from the Pocketbook for Farm Management (2023), the difference in yield is</p>



LIR Ref.	Summary	Applicant response
WLDC 7.14	<i>The scheme will impact 155.2 ha of BMV land when grouping the Natural England's Technical Information Note TIN049, as shown at Appendix B of this LIR, states that the ALC gives a high grading to land which allows more flexibility in the range of crops that can be grown (its 'versatility') and which requires lower inputs, but also takes into account ability to produce consistently high yields of a narrower range of crops.</i>	<p>between 10.0t/ha and 8.6t/ha. Taking that incremental difference of 1.4t/ha, and applying it to the full 80.4 ha of BMV within the site, that would be a reduction of production of 112 tonnes (80.4 ha x 1.4t/ha = 112.5t).</p> <p>In reality the incremental increase is likely to be less than this, but this is a worst case analysis, for the purposes of attempting to quantify. The implications of using non-BMV land in preference.</p> <p>To put that quantum (112t) in context, in 2022 the UK produced 15.5 million tonnes of wheat, a significant part of the just over 24 million tonnes of cereals produced in the UK (Defra "Cereal and Oilseed production in the United Kingdom 2022", published 21 December 2022).</p> <p>The Order limits including for the cable route include an estimated 155 ha of BMV land.</p> <p>Within the area proposed for development in the Solar and Energy Storage Park there is 73.6 ha of BMV (ES Chapter 12 Table 12-12 <b>[APP-021/3.1]</b>). Only 2 ha will be affected by the substation and planting areas (ES Chapter 12 paragraph 12.7.10).</p> <p>The rest of the BMV within the Solar and Energy Storage Park will not be adversely affected by the installation, although its output will be reduced for the period when the Scheme is operational.</p> <p>The ALC of the cable route corridor has been estimated. Within that corridor, the amount of agricultural land that will be disturbed within the corridor is very much less than the area recorded in the ES on ALC due to the need for flexibility within the grid corridor. As set out in the ES Appendix 2-B "Grid Connection Construction Method Statement", section 1.1.15 <b>[APP-114/3.3]</b>, the worst case scenario is a 25m width construction corridor and a 14.2m wide trench.</p>



LIR Ref. Summary	Applicant response
	<p>TIN 049 (Natural England, 2012) provides guidance on the ALC system. The full description of the different grades is provided in "Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land" (MAFF, October 1988) at Section 2. Subgrade 3a can produce a moderate to high yield of a narrow range of arable crops such as cereals, or moderate yields of a wide range of crops including cereals, potatoes and sugar beet.</p> <p>The BMV land within the Order Limits is shown on Map 3 of Appendix 12-C Agricultural Land Classification [APP-162/3.3]. Two small areas to the south are small areas within larger fields and are not capable of separate exploitation.</p> <p>The central block involves one complete field and a significant part of two others.</p> <p>The soils to the west of the railway are very sandy in this area.</p> <p>The yields in these sandy fields are very dependent upon the amount of rainfall in May. If there is a good level of rain that month, the cereal crops will be able to fill the seeds and crop yields will be reasonable or good. In a dry May, such as 2023, the grains do not fill and yields are often poor.</p> <p>The northern part of the site has some Subgrade 3a mixed with Subgrade 3b. There are parts of these fields that lie wet in some years, and the oilseed rape crop in 2023 has failed in several positions. These patterns of the land quality within the field prevent the BMV from being exploited differently to the non-BMV within the same field.</p> <p>The BMV land is suitable for growing a narrow range of arable crops, such as cereals and arable break crops. It is not suitable for a wide range of crops such as potatoes and vegetables.</p>



LIR Ref.	Summary	Applicant response
WLDC 7.19	<i>Whilst it is claimed that there will be areas underneath the solar arrays for sheep farming could be undertaken, it must be noted that this will impact the versatility of the BMV land. Versatility is a key element of BMV and therefore if the versatility of the land is lost, it is questioned whether the land can be considered BMV.</i>	Natural England's TIN 049 (December 2012), as referenced by WLDC, confirms that the ALC is based on the long-term physical limitations of land for agricultural use, with the factors affecting grade being climate, site and soil characteristics. It notes that "the Classification is concerned with the inherent potential of land under a range of farming systems. The current agricultural use, or intensity of use, does not affect the ALC grade".
WLDC 7.21	<i>There are doubts whether the land will ever be able to be returned agricultural use, particularly if current tenant farmers lose their livelihoods. The ExA is reminded that the 60 year lifetime of the project will likely result in a loss of agricultural knowledge in the area and therefore should question the likelihood of whether the land will ever be returned.</i>	Decommissioning of the Scheme after a period of 60 years is secured via Requirement 19 of the draft DCO. At the end of the Scheme lifetime, the Scheme would be decommissioned and removal of the PV panels and other infrastructure would take place in accordance with the Framework DEMP secured via Requirement 19, thereby returning the land to arable use. The Outline Soil Management Plan <b>[REP-031/7.12]</b> , secured via Requirement 17 sets out the reinstatement and restoration controls including the commitment that all soils will be returned to the landowner in like for like condition (see "Soil Restoration (c)" of that plan).  The effect on farms is considered under WLDC 10.1.
WLDC 7.28	<i>It is questionable that after 60 years whether it can be assumed the previous agricultural jobs will be generated.</i>	The agricultural employment from the current arable, energy crop and biodiversity land management enterprises will change.  Should the site be grazed by sheep during the operational phase, there will be agricultural employment during the operational phase from the management of sheep and grassland.  What agricultural enterprises will be selected at the end of decommissioning will be influenced by a great number of factors, not least how well we have contained climate change. Continued land management, for agriculture, is the expected future land use.





LIR Ref.	Summary	Applicant response
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WLDC 10.1 *The EIA should consider the socio-economic impacts of displacement of tenant farmers and agricultural workers, and the impact on land-take on the viability of affected farms. This requires full farm impact assessments based on meetings with land-owners and long-term tenants. IEMA does not provide a methodology for assessing these impacts, but there is an established one in the DMRB LA 112 Population and Human Health, and HS2's Scope and Methodology Report.*

There are four farms within the Solar and Energy Storage Park. All farms within the Solar and Energy Storage Park (SESP) are owner-occupied. No tenant farmers are being displaced.

The farm size and area within the Solar Energy Storage Park, and as a proportion of the area farmed, is shown in the table below.

Farm	Farm Type	Area Farmed (ha)	Area in SESP	Proportion in SESP
1	Cereals and break crops, agri-environmental	360	134	37%
2	Cereals, linseed, beans, some grassland (let for grazing)	2,020	387	19%
3	Miscanthus, cut for biofuel	68	67	98%
4	Cereals, oilseed rape, maize, beans, oats	365	63	17%

The continued viability of all of the farms, who have entered the proposals voluntarily, is not prejudiced by the Scheme.

WLDC 10.1 *Displacement of tenant farmers and agricultural workers is a socio-economic impact and should be covered in the chapter of the ES which deals with such impacts, such as Population and Human Health. Moreover, where there is a cluster of large solar farms there may be a cumulative socio-economic impact on the local agricultural supply industry such as seed, fertiliser and feed merchants and agricultural contractors.*

There will be potential for continued agricultural labour during the lifetime of the Scheme.

The labour involved in managing sheep is greater per hectare than the labour involved in producing cereals. This is shown below, taken from the John Nix Pocketbook for Farm Management (2023 edition):

- winter cereals, bale and cart straw, average 9.2 hours work / ha / year;
- sheep 4 hours/ewe/year at 8 ewes / ha equals 32 hours work / ha/ year.





LIR Ref.	Summary	Applicant response
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		There will inevitably be reduced work for those who supply seed, fertilizer, agronomy services, but there will be increased work for vets, feed suppliers, livestock auctioneers and hauliers.
WLDC 10.1	<p><i>Loss of food production during the lifetime of a solar farm is not a planning issue as farmers cannot be compelled to produce certain types of crops (except during national emergencies). Based on DMRB guidance, the agricultural holdings assessment should consider the:</i></p> <ul style="list-style-type: none"> <li>○ <i>Type, location and number of agricultural holdings from which land will be required or for which access will be affected by a project;</i></li> <li>○ <i>Land-take in relation to the size of the holding;</i></li> <li>○ <i>The level of existing severance/accessibility restrictions to agricultural land holdings within the study area; and</i></li> <li>○ <i>The frequency of use of the agricultural holdings/assets within the study area.</i></li> </ul>	<p>WLDC acknowledge that loss of food production is not a planning issue as farmers cannot be compelled to produce food.</p> <p>A response to the first two bullets is provided in the table in the earlier answer above.</p> <p>There is no severance of farms. The Solar and Energy Storage Park forms a compact block and involves farmland that forms either off-lying land or land at the edge of each of the farms involved, with the exception of the green land which is a single block growing an energy crop and farmed by contractors.</p>
WLDC 10.1	<p><i>Both the DMRB and HS2 methodologies provide guidance on assessment of value/sensitivity and magnitude of impact, leading to the assessment of effect.</i></p>	<p>See response to WLDC 7.1 which explains the methodology has been followed.</p>
WLDC 10.1	<p><i>Where landowners are bought out by compulsory purchase (as is permissible for Nationally Significant Infrastructure Projects) the financial compensation is not an environmental mitigation and so cannot influence the residual effect of loss of part or all of a farm business. However, where the landowner is a willing participant in the solar scheme, then their share of the income from electricity generation (normally the rental value) can be considered as mitigation, as the solar farm is a form of diversification of the farm business.</i></p>	<p>See earlier response to WLDC 10.1. All of the farms are run by landowners and willing participants.</p>



LIR Ref.	Summary	Applicant response
WLDC 10.1	<i>Employment figures for the scheme result the creation of 14 full-time equivalent (FTE) positions. It is assessed one job will be lost so the net gain would be 13. Have these figures taken into account the loss of tenant farmers?</i>	See response to 5) in WLDC 7.1 which explains that the figures do take into account the loss of farming jobs. However as per WLDC 10.1 it should be noted that all farms within the Solar and Energy Storage Park are owner-occupied. No tenant farmers are being displaced.
WLDC 10.1	<i>Paragraph 12.10.19 of the Socio-Economic chapter in the ES states the operational impacts of the works it is claimed that 73 hectares of BMV will be used for 'ecological mitigation (species rich grassland) or under solar panels, and therefore, could remain in agricultural use throughout operation'. However, within the decommissioning element of the scheme, paragraph 12.10.33 states: 'Prior to the commencement of decommissioning, an assessment will be made of the land and soil, and a programme of remedial action will be agreed and during decommissioning undertaken to return land to arable agricultural use.' This suggests that the land will not be used for agriculture during the proposed 60 year life cycle of the scheme.</i>  <i>It is not clear whether the BMV will offer any versatility during the lifetime of the Scheme.</i>	Grazing opportunities will remain available during the operational phase of the Scheme but is subject to there being a demand for grazing. This is why the Applicant is not able to guarantee grazing for the duration of the project.
WLDC 10.18	<i>There is potential for noise, air quality, visual and traffic effects arising from construction of the Scheme to impact on the amenity of residents, businesses and users of community facilities.</i>	The Socio-economics and Land Use assessment ES Chapter 12 <b>[APP-160/3.1]</b> assessed the potential for in-combination amenity impacts on residents, businesses and users of community facilities. An amenity effect could occur if two or more topics (noise, vibration, visual, traffic) assess significant adverse residual effects on a receptor or group of receptors occurring at the same time. The assessment concluded that no significant adverse effects during construction would arise as no receptors would experience more than one significant adverse effect at the same time.
WLDC 10.21	<i>The Site consists of agricultural land, with an estimation of equivalent to 1.5 existing jobs at the Site related to agricultural activities. Therefore, there is expected to be some employment loss as a result of the Scheme. 'Existing employment' refers to the employment outcomes which would have occurred without intervention. For</i>	Comment refers to text included within ES Chapter 12 <b>[APP-160/3.1]</b> . No response required.



LIR Ref.	Summary	Applicant response
	<i>example, if the Scheme were to result in a disruption to any existing economic activity currently occurring in relation to the Site.</i>	
WLDC 10.22	<i>There is potential for noise, air quality, and visual effects arising from the operation of the Scheme which would impact on the amenity of residents, businesses and users of community facilities. There are around 200 properties located within 500m of the Site. In addition, there are two businesses within 500m of the Site and nine community facilities within 2km of the Site.</i>	Comment refers to text included within ES Chapter 12 [APP-160/3.1]. No response required
WLDC 10.26	<i>The likelihood of land being returned to viable commercial agricultural use is uncertain and is an assumption that cannot be relied upon. The presence of existing agricultural businesses is clearly unknown and the land condition in 60 years following the commencement of the operational phase of the project cannot be assumed to be able to revert to its previous use.</i>	Comment refers to text included within ES Chapter 12 [APP-160/3.1]. No response required
WLDC 10.30	<i>The cumulative effects on agricultural land focus primarily on the agricultural land lost as a result of the Little Crow Solar Park and Heckington Fen Solar Park. There does not appear to be a cumulative assessment of the impact of the Cottam, Tillbridge or West Burton solar schemes.</i>	These Schemes are not assessed in the cumulative impact assessment in the ES due to the distance between the projects and lack of potential for significant cumulative effects. However, a separate document addressing the cumulative impact on agricultural land has been prepared and submitted at Deadline 2 [8.11]. This Technical Note demonstrates that even if all solar schemes considered where consented and constructed, with no reduction in the land proposed at present, they would still occupy only just over 1% of the BMV land in Lincolnshire. As explored in the response to WQ1.1.3 (see [8.6]) only 30-40% of proposed projects are developed. Given that no DCO projects except Little Crow are yet consented in Lincolnshire and the majority are in the early stages of development, in reality far fewer projects than assessed in the Technical Note may be developed.

**Alternatives and Site Selection**



LIR Ref.	Summary	Applicant response
WLDC 6.32	Chapter 3 of the ES provides an overview and commentary on the site selection process, however, it does not provide the assessments carried out at each of the 4 stages. The methodology applied is not explained and cannot be assessed. The comparative outcomes of each option against the criteria is not reported clearly.	<p>It is the Applicant's view that the site selection process as set out in ES Chapter 3 <b>[APP-012/3.1]</b> is proportionate and fit for purpose.</p> <p>NPS EN-1 paragraph 4.4.3 provides guidance on how consideration of alternatives should guide decision making on DCO applications. It states that <i>"Given the level and urgency of need for new energy infrastructure, the IPC should, subject to any relevant legal requirements (e.g. under the Habitats Directive) which indicate otherwise, be guided by the following principles when deciding what weight should be given to alternatives..."</i>.</p> <p>These principles include, but are not limited to:</p> <ul style="list-style-type: none"> <li>• consideration of alternatives for policy requirements should be proportional;</li> <li>• decision makers should consider whether alternatives could realistically provide the same capacity and be delivered over the same timescale;</li> <li>• alternatives not studied by the applicant should only be considered where 'important and relevant' to decision making (proposals that are not commercially viable or vague will not meet this criterion); and</li> <li>• wherever possible, alternatives should be identified before an application is made.</li> </ul> <p>The Applicant considered the above principles during the site selection approach.</p> <p>As concluded in ES Chapter 3 <b>[APP-012/3.1]</b>, the Gate Burton site met all inclusionary and exclusionary criteria, and avoided those areas likely to lead to a policy requirement to consider whether alternative sites would be preferable.</p>
WLDC 6.33	Despite the design objectives to identify a 'contiguous' site, the inclusion of 'outlier' land to the north and to the north-west of the site is contrary to this approach. These sites create an ad-hoc, scattered and unplanned approach to the site land assembly.	The Applicant is unclear as to which areas of the site WLDC is referring to and would be grateful for further clarification on this point. It is the Applicant's position that the Gate Burton site is fully contiguous.



LIR Ref.	Summary	Applicant response
WLDC 6.34	<p>The project has failed to avoid Class 3a agricultural land. The lifespan of the project (60 years) is such that the impact will have the effect of being permanent. No evidence or basis upon which to proclaim that the land would be improved, or able to be used for agriculture post-decommissioning.</p>	<p>The Applicant has minimised its impact on agricultural land. There would be a permanent loss of approximately 2 ha of BMV land as a result of the Scheme. The majority of the Solar and Energy Park (approximately 88%) comprises Grade 3b agricultural land or non-agricultural land. The remaining land is Grade 3a land, although some of that land (1% of the overall site) is BMV land that will be retained in agricultural use. Some agricultural use can continue on most BMV land following construction alongside the solar panels and the impact on almost all agricultural land is reversible when the Scheme is decommissioned. The impact on BMV land has been minimised through locating permanent development on lower quality land where possible. It will be further minimised through implementation of the Soils Resource Management Plan to protect soils (see <b>[APP-233/7.12 and as amended]</b> for the Outline Soils Resource Management Plan).</p> <p>While some agricultural land will be taken out of arable production temporarily for 60 years. Land affected permanently by the development (such as construction of the substation) will be limited to small areas. Impacts to BMV have been avoided by siting permanent infrastructure outside of areas of good quality agricultural land. ES Chapter 12 <b>[APP-021/3.1]</b> includes a breakdown of permanent and temporary losses for the different types of land use within the proposed development (including the Grid Connection Corridor), broken down by ALC area (ha) and percentage.</p> <p>The design life of the Scheme is expected to be 60 years and decommissioning is secured by Requirement 19 of the draft DCO. When the operational phase ends, the Solar and Energy Storage Park will be decommissioned. All PV modules, mounting poles, inverters and transformers would be removed and recycled or disposed of in accordance with good practice and market conditions at the time. Buried medium voltage cables would either be removed or left in situ. The majority of the Solar and Energy Storage Park would be returned to the landowner after decommissioning and will be available for its original use. The future of the substations and associated control buildings would be agreed with the relevant Local Planning Authority prior to commencement of decommissioning. Requirement 19 on the draft DCO requires that a</p>



LIR Ref.	Summary	Applicant response
WLDC 6.35	The assessment considers national landscape designations but does not appear to carry out a detailed assessment of the impact of local landscape character, including the impact on the designated Area Of Great Landscape Value (AGLV), and visual effects.	<p>Decommissioning Environmental Management Plan should be prepared and submitted to the relevant planning authority for approval prior to decommissioning.</p> <p>As set out in ES Chapter 3 <b>[APP-012/3.1]</b> Areas of Great Landscape Value identified in the Draft Central Lincolnshire Local Plan and Green Gaps in the Draft Bassetlaw Local Plan were also identified but not excluded from development. The degree of conflict that a solar development would have with the policies associated with these designations depends on the extent of landscape and visual impacts, which in turn could be influenced by good site layout and design. Further, whilst local landscape designations should be paid particular attention, NPS EN-1 paragraph 5.9.14 states that <i>'local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development'</i>. Paragraph 5.9.15-16 go on to say that when determining DCO applications decision makers should <i>'judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project.'</i> Given that development of NSIPs in local landscape designations can be acceptable and justified, these areas were not excluded. In assessing the suitability of the Gate Burton Site, the Applicant paid particular attention to the design and layout of this area to reduce the impact on the designated area, and landscape and visual impacts overall.</p>
WLDC 6.36	The use of construction access points from single lane minor roads despite also proposing two from two-way highways. The justification for the inclusion of these access points is not provided.	<p>Construction traffic has been assessed in ES Chapter 13 <b>[APP-022/3.1]</b> which concludes no significant effects as a result of the Scheme.</p> <p>The majority of construction vehicle trips will travel to/ from the main site access on the A156 Gainsborough Road to access the primary construction compound using solely the A-road and B-road network. Further details are contained within ES Chapter 13 <b>[APP-022/3.1]</b>. The Framework CTMP (Appendix 13-E <b>[APP-167 to 168/3.3 and as amended]</b>) includes an HGV routing plan which shows that local roads and nearby villages will be avoided where possible, as well as mitigation to avoid and/or reduce impacts, relating to construction traffic including the delivery of materials during construction. This includes the B1398 near Fillingham.</p>



LIR Ref. Summary	Applicant response
<p>WLDC 6.37 Lack of detailed consideration of cumulative transport impacts during the construction phase within the grid corridor. A commitment to work collaboratively is expressed, however it appears that limited consideration was given to the potential impact (5-7 years in sequence or 2-3 years concurrently) at the site selection stage.</p>	<p>Headstead Bank is the only single lane minor road providing construction vehicle access to the Order limits (in this case the Grid Connection Corridor (GCC) during the construction phase. Given the need to access the sections of the GCC between the River Trent and Headstead Bank to the east, and between the railway line and Headstead Bank to the west, providing access via Headstead Bank was considered to be the most preferable option, particularly given the characteristics of other local roads in this area (e.g. Broad Lane) which were considered to be less suitable for accommodating construction vehicles. In order to provide suitable access a number of improvements and mitigation measures are proposed on Headstead Bank, as set out within the Framework CTMP [APP-167/3.3 and APP-168/3.3], to allow construction vehicles to safely route to and utilise and travel to/from the GCC accesses via Headstead Bank.</p> <p>As set out within the Gate Burton Energy Park ES, parts of the Grid Connection Corridor has the potential to be shared with the West Burton Solar Project, Cottam Solar Project and Tillbridge Solar. For the purposes of transport and access, it is considered that a shared Grid Connection Corridor would reduce potential cumulative effects associated with the Scheme. Therefore, the cumulative assessment provided within Appendix A of the Report on the Interrelationship within other NSIPs [REP-033/8.2] is considered to provide a worst-case assessment in terms of potential cumulative effects. A commitment to see a combined CTMP, where practicable, has been included within the Framework CEMP submitted at Deadline 1 [REP-026/7.3]. This would manage and mitigate cumulative effects if necessary once further details are known on project timeframes and the approach for the shared Grid Connection Corridor. A firm commitment cannot be given on a Joint CTMP because the Gate Burton DCO cannot control the actions of other developers, there is uncertainty that all schemes will be developed and certainty over all project timescales. However, the Applicant is committed to seeking to prepare a Joint CTMP if practicable.</p> <p>The Gate Burton Energy Park is being taken forward by a separate developer to the other three schemes and whilst collaboration has been forged during Scheme development, no partnership working was in place previously. The</p>





LIR Ref.	Summary	Applicant response
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Applicant was not aware of plans for the other three Schemes when the site selection process began and details of site boundaries were only shared gradually as the four schemes have developed. It was therefore not possible to consider cumulative traffic impacts in the site selection process.

Ecology and Biodiversity		
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<p>WLDC 8.1.1</p>	<p><i>The report on surveys for bats, records potential for bat roosting within trees (including 38 with moderate or high suitability and buildings (including one with high suitability) but no surveys were undertaken to determine roost status or usage by bats.</i></p>	<p>As set out in Table 8-10 of Chapter 8 of the ES <b>[APP-017/3.1]</b>, the Scheme design retains and avoids habitats of value to bats. Table 3-3 of the Framework CEMP <b>[APP-224/7.3 and as amended]</b> includes the secured protective measures to ensure there are no impacts to potential bat roosts during construction. Given, there are no impacts to potential bat roosts, further surveys to determine roost status or usage by bats are not required.</p>
<p>WLDC 8.1.1</p>	<p><i>The biodiversity net gain conclusion is welcome; however, this is reliant on the LEMP which will need to be adequately secured in combination with the proposed topic specific draft DCO requirement (requirement 8).</i></p>	<p>Noted, this is secured through the draft DCO.</p>
<p>WLDC 8.1.1</p>	<p><i>Disagree with the conclusion of 'Local' biodiversity value for habitats which include veteran trees. Also ancient woodlands adjacent to the order limits (as listed in par 8.7.6) are a potential receptor and should be valued and impacts considered</i></p>	<p>Many of the veteran trees are located within habitats classified as 'hedgerows with trees' and assessed in Tables 8-7 and 8-9 of Chapter 8 of the ES <b>[APP-017/3.1]</b>, as being of 'up to County' biodiversity importance. Similarly, ancient woodland is assessed as being of County importance in Table 8-9 of Chapter 8 of the ES <b>[APP-017/3.1]</b>. When the embedded mitigation measures set out in Table 8-10 of Chapter 8 of the ES <b>[APP-017/3.1]</b> and secured in Table 3-3 of the Framework CEMP <b>[APP-224/7.3]</b>, are taken into account, then Table 8-12 concludes that there are no significant effects to ancient woodland arising from the Scheme.</p>
<p>WLDC 8.1.1</p>	<p><i>It is not clear from the description in Table 8-8 if any Bat roosts or potential roost features were recorded on site.</i></p>	<p>Details of the suitability of all trees and structures within the Order limits to support roosting bats is set out in Appendix 8-J: Bat Survey Report of the ES <b>[APP-134/3.3]</b>.</p>





LIR Ref.	Summary	Applicant response
WLDC 8.1.1	<i>Both Burton Wood and Long Nursery will be completely encircled by the development, Table 8-12 seems irrational to completely dismiss any potential for effects.</i>	The embedded mitigation measures set out in Table 8-10 ensure that there will be no impacts to either Burton Wood or Long Nursery. In addition, when designing the Scheme, the Applicant has carefully considered the proposed green infrastructure, to ensure that ecological connectivity is maintained and enhanced across the Scheme. As noted by WLDC, the position of Burton Wood, Quilters Wood and Long Nursery Wood are currently isolated in the landscape by existing agricultural land use and practices. Figure 10-23 in Annex A of the Outline Landscape and Ecological Management Plan (OLEMP) <b>[APP-231/7.10 and as amended]</b> illustrates the habitat creation and specific management prescriptions for each habitat type and shows how the Scheme will enhance ecological connectivity between Burton Wood, Quilters Wood and Long Nursery Wood. This includes natural regeneration buffers to the woodland, hedgerow improvement and planting and grassland habitat.
WLDC 8.1.1	<i>Chapter 8 Table 8-12 black redstart. The construction assessment states that ‘a species that can be sensitive to disturbance’ and that ‘there will be increased noise levels during construction works, e.g. site clearance, which may cause some disturbance’ how can this support a conclusion that there is no potential for an effect to occur?</i>	Table 8-10 of Chapter 8 of the ES <b>[APP-017/3.1]</b> , sets out that measures secured in Table 3-3 of the Framework CEMP <b>[APP-224/7.3]</b> namely, the requirement for pre-commencement surveys to be undertaken to determine the presence of breeding Black Redstart and if found to be present prior to construction commencing then the ECoW (experienced ornithologist) will advise as to whether a no disturbance buffer is required to avoid disturbance to this Schedule 1 breeding species. As such, it has been concluded that there is no potential for a significant effect to occur.
WLDC 8.1.1	<i>Chapter 8 Table 8-12 Bats. The broad-leaved woodland rows above indicate some possible tree removal ‘Where individual trees are removed (e.g. for access)...’ it is not clear whether removal of trees and potential roosts has been considered.</i>	Table 8-12 of the Chapter 8 of the ES <b>[APP-017/3.1]</b> , states ‘ <i>The construction of the Scheme will avoid features used by roosting bats, such as woodland and hedgerows and any trees identified as being of potential to support roosting bats. There will be no loss of important habitats used by bats anywhere within the Order limits.</i> ’
WLDC 8.1.1	<i>Chapter 8 Table 8-13. This table provides assessment of negative impacts of the scheme but only two receptors (IEFs) are brought into this table: hedgerows, which are concluded to be minor adverse and non-significant and Skylark which are considered to be moderate adverse and significant. However, based on comments and observations above in relation to Table 8-12, it is possible that additional receptors should be considered.</i>	As set out in the responses to previous comments the Applicant has embedded sufficient avoidance and mitigation measures, as set out in Table 8-10 of Chapter 8 of the ES <b>[APP-017/3.1]</b> , to ensure that Tables 8-11 and 8-12 conclude the potential for effects on Important Ecological Features (IEFs) are limited to those identified in Tables 8-11 and 8-12 and assessed further in sections 8.10.5-8.10.20.



LIR Ref.	Summary	Applicant response
WLDC 8.1.1	<i>Chapter 8 Table 8-13. This table provides assessment of enhancements, of which significant beneficial effects are concluded in relation to broad-leaved woodland, hedgerows, and breeding birds (general). These conclusions are reliant on delivery of planting and management as delivered by the LEMP and would be reliant on this document being adequately detailed and secured by the DCO. However it is worth noting that these enhancements seem to be considered in isolation from any negative impacts to the scheme, many of which have been discounted at Table 8-12.</i>	The LEMP would be secured by a requirement of the DCO. As set out in the responses to previous comments the Applicant has embedded sufficient avoidance and mitigation measures, as set out in Table 8-10 of Chapter 8 of the ES <b>[APP-017/3.1]</b> , to ensure that adverse effects to IEFs are avoided or minimised. With the addition of the enhancements to be delivered by the Scheme, as set out in section 8.11, it has been concluded that the Scheme will deliver overall benefits to the IEFs identified in Table 8-14.
WLDC 8.1.1	<i>Chapter 8 General The assessment does not seem to take any account of emissions from on-site plant and transportation, if this has been scoped out on basis of scale it would be helpful state so.</i>	Correct – emissions from on-site plant and transportation have been scoped out of the assessment based on scale, although degradation to habitats from construction activities are assessed in Chapter 8. Mitigation measures are secured in Table 3-3 of the Framework CEMP <b>[APP-224/7.3 and as amended]</b> .

### Transport and Access

NCC 2.16 to 2.17	<p><i>NCC will be seeking conditions with respect the size, location, and access arrangements for any temporary compounds required to facilitate the construction of the grid connection, the routeing of vehicles involved in the laying of the cable and the condition and suitability of those routes or as set out in an agreed CTMP.</i></p> <p><i>NCC assume the grid connection cable would be abandoned or repurposed on decommissioning rather than being removed. Otherwise, we would be seeking similar conditions to the above.</i></p>	<p>The comment is noted re. NCC will be seeking conditions for items to facilitate the construction of the grid connection corridor. The CTMP will be a control document and will be secured through Requirement 14 of the Draft Development Consent Order <b>[REP-018/6.1]</b>. Construction activities will therefore be required to be delivered in line with the CTMP. The detailed CTMP will be required to be agreed with the relevant Highways Authorities, included NCC, and will need to be substantially in accordance with the Framework CTMP <b>[APP-167 to 168/3.3 and as amended]</b> agreed through the DCO process. Therefore, NCC can have confidence that all such elements requested will be agreed through the CTMP and delivered in line with those agreements.</p> <p>In terms of the grid connection cable as stated within para 2.7.6 of Chapter 2 of the ES <b>[APP-011/3.1]</b> “It is not currently known if the buried 400 kV cables would be left in situ or removed”. For the purposes of the assessment, both scenarios have been considered within the ES and further details are set out within Chapter 2 of the Framework Decommissioning Environmental Management Plan <b>[APP-226/7.5]</b>.</p>
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LIR Ref.	Summary	Applicant response
WLDC 11.1	<p><i>A threshold of less than 30 additional vehicles per hour has been classified as having a very low magnitude of impact. Given that most of the additional traffic generated by the proposed development during construction will be heavy goods vehicles (HGVs), this threshold could be considered too high regarding potential adverse effects on amenity, fear and intimidation for non-motorised users, as well as on the amenity of people living or working alongside construction lorry routes, especially for construction lorry routes along relatively lightly traffic country lanes.</i></p>	<p>As set out above, the temporary highways works required to accommodate access by large construction vehicles and abnormal loads, including potential removal of hedgerows, is set out in the Framework CTMP <b>[APP-167 to 168/3.3]</b>. This represents a worst case assessment, as there may be scope through detailed design to reduce the requirement for widening and hedgerow removal. The environmental effects of such works are assessed in the relevant chapters of the Environmental Statement.</p>
WLDC 11.1	<p><i>No surveys of existing usage of public rights of way affected by the solar farm appear to have been undertaken. Therefore, the assessment has not been based on quantification of level of use of the public rights of way, albeit it is likely that usage of these public rights of way will be relatively low due to the rural nature of the location. But without survey data this cannot be confirmed.</i></p>	<p>There was no requirement to carry out surveys of PRow following consultation with the Local Highway Authorities, as the management/mitigation proposed has not been based on usage levels, but rather the requirement to keep all PRow open irrespective of usage levels. Therefore, whilst it is acknowledged that the exact quantity of usage of PRow cannot be confirmed, suitable diversions (no closures) and route management are proposed for all PRow routes, so that suitable routes for any/ all users (including in the instance that these routes are relatively well used) will be available for the duration of the construction phase in any case. This is set out within Chapter 3 of the Outline Public Rights of Way Management Plan <b>[APP-229/7.8]</b>.</p>
WLDC 11.1	<p><i>The TA does not appear to include any vehicle swept path analysis to demonstrate whether any highway works are required to accommodate large construction vehicles and abnormal loads along the proposed construction lorry routes and at access points for construction work sites. Some of the roads that will provide vehicles access for construction of the cable route corridor are single track lanes with passing places, where enlarged or additional passing places may be required to safely accommodate additional construction traffic. The TA does not seem to provide any analysis to determine if this is the case.</i></p>	<p>All relevant swept path drawings are included within the Framework CTMP <b>[APP-167 to 168/3.3 and as amended]</b> which forms an Appendix of the ES. This includes proposed site access layouts, visibility splays and swept paths for the Solar and Energy Storage Park and the Grid Connection Corridor. This also includes abnormal vehicle route access swept paths and an abnormal vehicle route access survey. The Framework CTMP <b>[APP-167 to 168/3.3 and as amended]</b> also identifies temporary improvements that will be required to accommodate construction vehicles including abnormal loads, such as temporary traffic management, vegetation clearance, potential carriageway widening. The highway improvements will be secured by the DCO, and further details of the works required to deliver the improvements will be provided by the contractor in the Detailed CTMP(s) as secured by Requirement 14 in the Draft DCO <b>[REP-018/6.1]</b>.</p>



LIR Ref.	Summary	Applicant response
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WLDC 11.1 *An assessment of the potential environmental effects due to any temporary highway works necessary to accommodate access by large construction vehicles and abnormal loads, that may require the removal of hedgerows for example, are not, therefore, covered by the ES.*

As set out above, the temporary highways works required to accommodate access by large construction vehicles and abnormal loads, including potential removal of hedgerows, is set out in the Framework CTMP **[APP-167 to 168/3.3]**. This represents a worst case assessment, as there may be scope through detailed design to reduce the requirement for widening and hedgerow removal. The environmental effects of such works are assessed in the relevant chapters of the Environmental Statement.

WLDC 11.1 *The potential adverse traffic and transport effects during construction are proposed to be minimised through measures identified in Framework CTMP and an outline Construction Workforce Travel Plan. For these to be effective and achieve the claimed benefits, it will be necessary for the commitments contained in them to be secured under the DCO.*

The CTMP is secured by Requirement 14 of the Draft DCO. The CTMP must be substantially in accordance with the Framework CTMP which has been submitted as part of the DCO Application **[APP-167/3.3 and as amended]**.

It should be noted that whilst no separate CWTP document has been produced (or was deemed required at scoping) measures relating to construction workers, as typically found in a CWTP, are included within the Framework CTMP **[APP-167 to 168/3.3 and as amended]**. This includes measures such as providing a shuttle service to transfer construction workers between local settlements and the Solar and Energy Storage Park, a minibus service to transfer staff between the Solar and Energy Storage Park and the Grid Connection Corridor, as well as providing limited car parking and encouraging car sharing to reduce single occupancy vehicles trips on the surrounding highway network.

WLDC 11.1 *As set out in the Transport and Access chapter of the ES (Doc. Ref. EN010131/APP/3.1), consideration should be given to the coordinated mitigation between all the proposed solar schemes, through planning obligations. The joint approach to the cable corridor should be made a priority in order to limit the impact on.*

The Applicant is committed to working with the developers of Cottam and West Burton on joint mitigation, including the production of a Joint CTMP for the purpose of the shared corridor area where practicable. This is secured through the DCO, in accordance with the Framework CEMP, submitted at Deadline 1 as part of the DCO Application.



LIR Ref.	Summary	Applicant response
WLDC 11.1	<i>If the Cottam, Tillbridge and West Burton solar farm proposals were to commence at similar times, a worst case scenario would result in approximately 160 HGV vehicles using the local road network per day if peak construction was to coincide with all four schemes. It is not clear whether this would cover the total HGV movements, in which case the number of movements could be over 320.</i>	<p>A Cumulative Effects Transport and Access Technical Note was submitted at Deadline 1 as an Appendix (Appendix A) to the Interrelationship Report <b>[REP-033/8.2]</b>. This technical note provides a comprehensive cumulative assessment impact of the three named schemes: West Burton, Cottam and Tillbridge (and Gate Burton).</p> <p>The Technical Note concludes that following a further review of the potential cumulative impacts of West Burton, Cottam and Tillbridge, the findings of ES Chapter 13 <b>[APP-022/3.1]</b> of the Gate Burton Energy Park ES are considered to remain unchanged.</p>
WLDC 11.1	<i>Appendix 13-Ea: Framework Construction Traffic Management Plan [EN010131/APP/3.3] states that there will be 'it is expected that there will be a number of Abnormal Indivisible Loads (AILs)/ abnormal vehicles required by the Scheme'. However, exact movements do not appear to be confirmed.</i>	<p>Chapters 5 and 6 of the Framework CTMP <b>[APP-167 to 168/3.3 and as amended]</b> provides this information. A 65.8m length vehicle will be required to deliver the transformer to the Solar and Energy Storage Park via the main site access on the A156 (arrival only, as the vehicle would be disassembled prior to egress). A number of 24.6m length vehicles will be required to transport cable drums to/ from the Grid Connection Corridor via multiple access points (arrivals and departures). Whilst the exact number of these cable drum deliveries has not yet been confirmed, the assessment considers the routing of these deliveries to all of the proposed Grid Connection Corridor access points. The Framework CTMP <b>[APP-167 to 168/3.3 and as amended]</b> also includes proposed site access layouts, visibility splays and swept paths for the Solar and Energy Storage Park and the Grid Connection Corridor. This also includes abnormal vehicle route access swept paths and an abnormal vehicle route access survey.</p>

**Climate change**



LIR Ref.	Summary	Applicant response
WLDC 12.25	<p><b>Decommissioning:</b> <i>Despite the ES concluding no significant residual effects on climate change, the ES also admits a ‘very high degree of uncertainty’ for GHG emissions. The SoS is therefore minded to keep this in mind during their assessment of the scheme. Whilst a calculation of 11,324 tCO<sub>2</sub>e has been provided there is a possibility that the emissions could be much higher.</i></p>	<p>The uncertainty around decommissioning arises from the fact that these activities are due to take place many years into the future, and therefore the exact circumstances, systems, approaches and regulatory frameworks are likely to be very different from those currently in place.</p> <p>But it is very important to note that the decommissioning of assets within the Scheme is set to take place after the date by which the UK Government has a legally-binding obligation to have achieved net zero emissions. On that basis, it is reasonable to assume that decommissioning activities will also require to have been effectively decarbonised by this time.</p> <p>The estimates of emissions during the decommissioning phase presented in the Environmental Statement are therefore highly conservative, and likely to overstate the actual emissions taking place at the end of life of the Scheme. The uncertainty expressed in the Environmental Statement refers to uncertainty around how much lower actual decommissioning emissions may be, rather than indicating that they may be higher than estimated.</p>

### Human health and wellbeing

WLDC 13.14	<p><i>The construction of Cottam, Gate Burton and West Burton could create a peak of 1,886 workers, which could have implications on access to healthcare services. As explained in the Section 14.7, currently, the GP to Patient ratio is 1:1,880, which is also the recommended ratio set by the Royal College of General Practitioners (1:1,800). However, it is assumed that West Burton 2 and 3 together will have a peak construction workforce of 654 FTE and Cottam 1 will have a peak construction workforce of 832 FTE, in addition to the 363 FTE from Gate Burton. Taking into account these other developments, this could as a worst case scenario, potentially increase this ratio to 1:1905 which greatly exceeds the recommended ratio as set by the Royal College of General Practitioners.</i></p>	<p>The GP: Patient ratio analysis undertaken in in ES Chapter 14 <b>[APP-023/3.1]</b> (Human Health and Wellbeing of the ES) concluded that the GP: Patient ratio would increase from a baseline of 1,800 per GP to 1,905 per GP once the scheme and the cumulative schemes are taken into account. This assessment represented a very worst case whereby the peak construction months for all schemes would coincide, which was assessed on the basis that such detail was not available at the time of preparing the EIA. It is anticipated that for the vast majority of the construction period, such additional demand would not arise. Furthermore, this analysis does not take into account the proportion of home-based workers for each scheme. These workers would access GP healthcare where they reside currently and so decreasing the demand in terms of FTE likely considerably, by 57% applying the same assumption on home-based</p>
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LIR Ref.	Summary	Applicant response
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workers as for Gate Burton. Finally, for large parts of the construction period, worker numbers would be at or below the average forecast and therefore the ratio of GP:Patient provision compared to the baseline would be negligible or very small.

In conclusion, no mitigation is proposed because taking into account factors such as home-based workers receiving healthcare services where they reside, the workforce on-site being lower than peak levels for the vast majority of the construction period, and that peak construction periods for two or more schemes will not in any likelihood coincide, changes in demand will be not appreciable to justify additional provision of services for what is a temporary duration of two years. It is also relevant to note that being of working age and in employment that the construction workers would, in all likelihood, access services less than typical residents of the area, if they have to register for services at all, thus reducing any potential additional demand for healthcare services generated further.

Noise and vibration		
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WLDC 14.1.1	<p>WLDC state the following in relation to ES Chapter 14: Human Health and Wellbeing:</p> <ol style="list-style-type: none"> <li>1) The monitoring locations and selected sensitive receptors around the solar farm are reasonable although it would have been useful to include Pembroke House (north of ML2) as a sensitive receptor.</li> <li>2) Although the ES chapter states that consultation with the Local Authority has taken place to discuss the assessment methodology, it is unclear if the Local Authority has agreed to the proposed approach or the operation phase mitigation measures. It is therefore not possible to confirm that the ES chapter is fully compliant with items 3.6.4 and 3.6.5 from the Scoping Opinion.</li> </ol>
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<ol style="list-style-type: none"> <li>1) Although Pembroke House was erroneously omitted from the operational noise assessment in ES Chapter 11 <b>[APP-020/3.1]</b>, Figure 11-2 <b>[APP-097/3.2]</b> provides a noise contour plot with the location of Pembroke House marked. Pembroke House is clearly outside the 35 dB LAeq,T operational noise contour. Including a 3 dB rating penalty correction; operational noise levels at Pembroke House are between the LOAEL and SOAEL. Reasonable steps to reduce noise are covered in the embedded mitigation section and have been applied in noise predictions. The Noise Policy Statement for England states...  <i>"...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur"</i>.            Reasonable steps to reduce noise are covered in the embedded mitigation section of ES Chapter 11 <b>[APP-020/3.1]</b> and have been</li> </ol>
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LIR Ref.	Summary	Applicant response
	<p>3) The construction phase assessments are considered to be acceptable, however, clarifications listed in Section 7.4 of this report are required.</p>	<p>applied in noise predictions. Consequently, NPSE requirements are complied with through provision of embedded mitigation.</p> <p>2) Details of the assessment methodology and mitigation were presented in the PEIR and a platform for discussion was in place through the statutory consultation process. Additionally, the assessment methodology was presented to West Lindsey District Council EHOs in a meeting on 12<sup>th</sup> April 2022. The presentation covered:</p> <ul style="list-style-type: none"> <li>• Study area.</li> <li>• Sensitive receptors.</li> <li>• Monitoring locations.</li> <li>• Construction noise assessment methodology.</li> <li>• Construction vibration assessment methodology.</li> <li>• Construction traffic assessment methodology.</li> <li>• Operational noise assessment methodology.</li> </ul> <p>The ABC method in BS 5228-1 is used as a basis to assess construction noise effects. The methodology applied for assessing construction noise effects has been used in a number of other DCO applications and is considered current industry best practice. The assessment of operational noise presented in ES Chapter 11 <b>[APP-020/3.1]</b> has been undertaken with reference to guidance in BS 4142:2014+A1:2019.</p> <p>3) Noted - Section 7.4 clarifications are not included in the LIR. Additional information is required on the required clarifications.</p>
<p>WLDC 14.1.1</p>	<p><i>Table 11-17 shows that the rating level is more than 10 dB above the background sound level at several sensitive receptors (R2, R3, R4, R10, R11, R12, R15, R18 and R19), which cannot be ignored. In a rural area, changes of this magnitude are likely to be perceptible to local residents, who may perceive that the character of the local area is changing. Further information on contextual factors is required to</i></p>	<p>ES Chapter 11 <b>[APP-020/3.1]</b> provides a method for assessing operational noise whilst accounting for very low background noise levels. This method is defined in accordance with guidance in the “Association of Noise Consultant’s Guide to BS 4142”. This method takes into context the absolute level of operational noise and not just a comparison against background noise levels. Operational noise levels exceeding the LOAEL but not exceeding the SOAEL have been identified at sensitive receptors. In accordance with Planning</p>





LIR Ref.	Summary	Applicant response
	<p><i>confirm the significance, which may include reference to daytime impacts.</i></p>	<p>Practice Guidance Noise, exceedance of the LOAEL: <i>"Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life."</i></p> <p>Consequently, the assessment acknowledges that there may be perception that the character of the local area is changing. For exceedances of the LOAEL, the Noise Policy Statement for England states that:</p> <p><i>"...all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life while also taking into account the guiding principles of sustainable development. This does not mean that such adverse effects cannot occur"</i>.</p> <p>Reasonable steps to reduce noise are covered in the embedded mitigation section of Chapter 11: Noise and Vibration and have been applied in noise predictions. Consequently, NPSE requirements are complied with through provision of embedded mitigation.</p>
<p>WLDC 14.1.1</p>	<p><i>The main approach to mitigation is the use of best practicable means, daytime working hours, stakeholder liaison, and implementation of a construction traffic management plan and construction noise monitoring. These are reasonable general measures for controlling construction activity noise and vibration and construction traffic. However, as temporary construction noise barriers are not included with the list of best practicable means and several sensitive receptors were predicted LOAEL exceedances from NGA3, it is recommended that further consideration is given to the use of temporary noise barriers as a noise control measure.</i></p>	<p>The assessment of construction noise effects during NGA3 does not explicitly refer to the use of acoustic barrier to control noise. This is because plant are mobile and barriers are not always a practicable solution for mitigating noise emissions from mobile plant. Consequently, any assumption on barrier mitigation made in the assessment may not be achievable in reality. However, as part of best practicable means, screening will be applied locally to significant noise producing plant where it can be effective at reducing noise at nearby receptors.</p> <p>The following text has been added to the Deadline 2 Framework CEMP <i>"If the HDD activities result in noise at nearby sensitive receptors that is predicted to exceed the night-time SOAEL off 55 dB LAeq T, acoustic fencing would be used to screen the affected receptor from HDD noise and reduce noise levels to below the SOAEL"</i>.</p>



LIR Ref.	Summary	Applicant response
WLDC 14.1.1	<i>Paragraph 13.13.35 of the Transport and Access chapter of the ES states that the sequential installation of all three projects' ducts and cables over a maximum 5-year period. However, the Noise and Vibration chapter states that Grid Connection cable works on the three projects will be built sequentially over a six-year period (paragraph 11.13.5).</i>	The Applicant can confirm that this is a drafting error in ES Chapter 11: Noise and Vibration [APP-020/3.1]. It is assumed the Grid Connection cable works on the three projects will be built sequentially over a five-year period.



LIR Ref.	Summary	Applicant response
BDC p.7	<p>BDC comment the following in respect of the Scheme's noise impacts:</p> <ol style="list-style-type: none"> <li>1) BDC request cabling work is undertaken in a timely manner so as to limit the duration of any noise nuisance to residents/businesses;</li> <li>2) The cabling route chosen should have a significant noise impact on as few residential properties and businesses as possible within Bassetlaw, with the priority given to residential properties;</li> <li>3) Detailed noise surveys should be undertaken to identify properties likely to be impacted by noise and effective mitigation measures are put in place;</li> <li>4) The developer liaise with the wider community, but especially closely with those residents and businesses likely to be most impacted by the development, to explain the likely impact and allay any concerns; and</li> <li>5) That at the highest level, possibly at Ministerial level, the various solar and other energy projects that are proposing to connect to the Cottam Substation are required to effectively collaborate to avoid the possibility of multiple different cabling routes being installed in the vicinity of Cottam, parallel routes being installed at different times, or developed cabling route being re-opened for additional cabling.</li> </ol>	<ol style="list-style-type: none"> <li>1) The Framework Construction Environmental Management Plan <b>[REP-026/7.3 and as amended]</b> includes measures to ensure the construction works are as least disruptive to residents/businesses as possible. This includes a scheme for the provision of monthly reporting of information to local residents to advise when potential noisy works are due to take place.</li> <li>2) The cable route was selected based on the conclusions of Appendix 3-A Grid Connection Corridor Appraisal <b>[APP-115/3.3 and as amended]</b>. The Appraisal concluded that Corridor C1 provided the best balance of minimising impacts on the environment and the local community whilst meeting the technical and constructability feasibility requirements.</li> <li>3) Baseline Noise Surveys have been undertaken to inform the construction and operational noise assessments by establishing the existing noise climate in the area. Further information is provided in Appendix 11-C <b>[APP-157/3.3]</b>.</li> <li>4) The Framework Construction Environmental Management Plan <b>[REP-026/7.3 and as amended]</b> includes measures to ensure the construction works are as least disruptive to residents/businesses as possible. This includes a commitment to develop a communications strategy.</li> <li>5) The Applicant is committed to working with the various solar energy projects that are proposing to connect to the Cottam Substation.</li> </ol>



LIR Ref.	Summary	Applicant response
<b>Glint and Glare</b>		
WLDC 15.1	<p>WLDC make the following comments in respect of glint and glare:</p> <ul style="list-style-type: none"> <li>The assessment should also include first floor windows in residential buildings which in this instance not considered.</li> <li>Figure 3 - There needs to be an investigation as to whether there is any railway signal(s) between point 1 and 25.</li> <li>For the ground-based receptor mitigation proposal indicated in chapter 7, it is not clear if the hedgerows proposed to be implemented are instant, matured, and ready made at 3m height?</li> <li>There appears to be no mitigation for residential receptor 69 which is in the middle of the arrays.</li> </ul>	<p>First floor windows have been assessed as part of the Visibility Assessment. All mitigation proposed is done so to screen all views of Glint and Glare from all windows of residential properties, where possible. See ES Figure 10-22 Advanced Planting Plan [APP-094/3.2].</p> <p>Based on the information available, no railway signals were found along this stretch of the railway.</p> <p>Hedgerow planting will be in line with principles detailed in the Outline Landscape and Ecology Management Plan [APP-231/7.10].</p> <p>Receptor 69 has Low impacts due to having extremely limited views of the Scheme where glint and glare impacts are predicted. Therefore, no mitigation is required.</p>

**Water Environment**

WLDC 17.10	<p><i>The ES states that 17 watercourse crossings could be required in order to facilitate access track crossings, and it has been assumed as part of the ES that these will all be culverted. Work will be required in those watercourse crossing channels and therefore the hydrological and sediment regimes will be affected coupled with the increased risk of runoff entrained with sediment or accidental spillages. There will also be a direct loss of riparian, bank and bed habitats as these will be replaced by culverts. The structures could reduce the movement of mammals and interrupt continuity of the natural hydraulic and sediment regimes.</i></p>	<p>The Applicant has provided information on the approach to watercourse crossings in a comprehensive screening exercise that was undertaken for determining where open span bridges or culverts were required. This is contained within Appendix A of the signed Statement of Common Ground with the Environment Agency which was submitted at Deadline 1 [REP-014/4.3E]. The Environment Agency have agreed with this approach.</p>
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LIR Ref.	Summary	Applicant response
WLDC 17.12	<i>There is also the potential that the watercourses and ponds surrounding the site could be impacted from site runoff and chemical spillages.</i>	Measures relating to surface water management during construction, including management of sediment, runoff laden with sediment and accidental spillages are outlined in both ES Chapter 9 [APP-018/3.1] and the Framework Construction Environmental Management Plan (CEMP) [APP-224/7.3]. These will be included in the final CEMP.
WLDC 17.13	<i>A proportion of the site and the majority of the cable corridor is situated in Flood Zone 2 and 3 therefore during the construction phase there is an increased risk to flood risk receptors due to the increased rate and volume of surface water runoff from an increase in impermeable areas.</i>	A Flood Risk Assessment is provided in Appendix 9-D [APP-142/3.3] which concludes that there would be no increase in flooding from any source, given implementation of the Outline Drainage Strategy C [APP-139 to 141/3.3] and the mitigation measures outlined in ES Chapter 9 [APP-018/3.1].
WLDC 20.15	<i>There is a potential for several impacts from the Scheme where the cable corridor crosses the River Trent, Seymour Drain, Marton Drain and several unnamed watercourses. The ES states that Grid Connection Corridor will be constructed beneath the channels of the watercourses via HDD techniques. This therefore causes there to be a potential impact to the water quality of the watercourses</i>	As stated in the Framework CEMP [APP-224/7.3], the Scheme design has avoided the majority of watercourses and the construction of the Grid Connection Corridor will utilise non-intrusive methods. With the mitigation measures detailed in the Framework CEMP, which include for mitigating the impacts on water quality from trenchless crossing techniques, no significant effects are expected on water quality, as set out in Chapter 9: Water Environment [APP-018/3.1].
WLDC 20.16	<i>Whilst it is noted that there is an intention to work collaboratively with Cottam and West Burton on the cable corridor, there is no guarantee that the schemes will be constructed at the same time, this would mean that the water courses could be impacted several times.</i>	As set out in paragraph 5.8.19 of ES Chapter 5 [APP-014/3.1], the cumulative assessment of the EIA has considered two scenarios, once of which is the sequential installation of all three projects' ducts and cables over a maximum of 5-year period. This cumulative scenario has been considered from a water quality, flood risk and ecological perspective and no significant effects are identified.

### Other Environmental Topics

WLDC 18.3	<i>Within the Scoping Opinion the Inspectorate commented: "For the avoidance of doubt, until the results and recommendations of the PRA are known, there is insufficient evidence to support scoping out an assessment of ground conditions". However the Ground Conditions subsection of Chapter 15, does not include an impact assessment therefore West Lindsey cannot report the impacts due to the Proposed Development.</i>	As stated in the Scoping Opinion Response Table [APP-111/3.3] Appendix 15-C Phase 1 Preliminary Risk Assessment [APP-176/3.3], and ES Chapter 15 [APP-024/3.1] provides the findings of the ground conditions assessment. The grid connection which passes through a Mineral Safeguarding Area for sand and gravel has now been narrowed. It was agreed with Nottinghamshire County Council and Lincolnshire County Council that a Minerals Safeguarding Assessment was not required. Therefore, it is considered that this negates the
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LIR Ref.	Summary	Applicant response
		<p>need for an assessment on ground conditions and the potential for sterilisation of mineral resources within the ES.</p>
BDC p.15	<p><i>We would like to see means of mitigating land contamination and intrusive site investigations taking place where there is reasonable possibility of existing land contamination in line with LCRM guidance.</i></p>	<p>As stated within the Outline Soil Management Plan <b>[REP-030/7.12]</b> ground testing / soil sampling will be required to confirm contamination levels.</p>
BDC p.8	<p><i>Flood lighting at the site of the cabling work, lighting servicing site compounds etc, or security lighting could have a significant negative impact on residents and businesses in the vicinity of the cabling route. Once the route is selected, care should be taken to ensure that all artificial lighting for the site both temporary and permanent should be of such a design and installed and sited/ angled in such a manner as to prevent glare or light shining directly into neighbouring residential properties or businesses</i></p>	<p>There are measures included within the Framework CEMP <b>[REP-026/7.3 and as amended]</b> to control the use of lighting for example ensuring that lighting is minimised where possible, and if used is directional to minimise outward spill.</p>

