



SCOPING OPINION:

Proposed Leoda Solar Farm

Case Reference: EN0110016

Adopted by the Planning Inspectorate (on behalf of the Secretary of State) pursuant to Regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

13 March 2025

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APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

1. INTRODUCTION

1.0.1 On 31 January 2025, the Planning Inspectorate (the Inspectorate) received an application for a Scoping Opinion from Leoda Solar Farm Limited (the applicant) under regulation 10 of The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) for the proposed Leoda Solar Farm (the proposed development). The applicant notified the Secretary of State (SoS) under regulation 8(1)(b) of those regulations that they propose to provide an Environmental Statement (ES) in respect of the proposed development and by virtue of regulation 6(2)(a), the proposed development is 'EIA development'.

1.0.2 The applicant provided the necessary information to inform a request under EIA regulation 10(3) in the form of a Scoping Report, available from:

1.0.3 <https://national-infrastructure-consenting.planninginspectorate.gov.uk/projects/EN0110016/documents>

1.0.4 This document is the Scoping Opinion (the Opinion) adopted by the Inspectorate on behalf of the SoS. This Opinion is made on the basis of the information provided in the Scoping Report, reflecting the proposed development as currently described by the applicant. This Opinion should be read in conjunction with the applicant's Scoping Report.

1.0.5 The Inspectorate has set out in the following sections of this Opinion where it has / has not agreed to scope out certain aspects / matters on the basis of the information provided as part of the Scoping Report. The Inspectorate is content that the receipt of this Scoping Opinion should not prevent the applicant from subsequently agreeing with the relevant consultation bodies to scope such aspects / matters out of the ES, where further evidence has been provided to justify this approach. However, in order to demonstrate that the aspects / matters have been appropriately addressed, the ES should explain the reasoning for scoping them out and justify the approach taken.

1.0.6 Before adopting this Opinion, the Inspectorate has consulted the 'consultation bodies' listed in appendix 1 in accordance with EIA regulation 10(6). A list of those consultation bodies who replied within the statutory timeframe (along with copies of their comments) is provided in appendix 2. These comments have been taken into account in the preparation of this Opinion.

1.0.7 The Inspectorate has published a series of advice pages, including '[Advice Note 7: Environmental Impact Assessment: Preliminary Environmental Information, Screening and Scoping \(AN7\)](#)'. AN7 and its annexes provide guidance on EIA processes during the pre-application stages and advice to support applicants in the preparation of their ES.

1.0.8 Applicants should have particular regard to the standing advice in AN7, alongside other advice notes on the Planning Act 2008 (PA2008) process, available from:
['Nationally Significant Infrastructure Projects: Advice pages'](#)

1.0.9 This Opinion should not be construed as implying that the Inspectorate agrees with the information or comments provided by the applicant in their request for an opinion from the Inspectorate. In particular, comments from the Inspectorate in this Opinion are without prejudice to any later decisions taken (e.g. on formal submission of the application) that any development identified by the applicant is necessarily to be treated as part of a Nationally Significant Infrastructure Project (NSIP) or associated development or development that does not require development consent.

2. OVERARCHING COMMENTS

2.1 Description of the proposed development

(Scoping Report Section 2 and Appendix E)

ID	Ref	Description	Inspectorate's comments
21.1	Paragraph 2.2.3	Description of options for the grid connection corridor	<p>The Scoping Report refers to three options being considered for the grid connection corridor, however these routes do not appear to be described or represented on an accompanying figure.</p> <p>The ES should clearly explain and represent any options considered for the routing of the grid connection corridor, in particular where the application for a Development Consent Order (DCO) retains optionality.</p> <p>The ES should also give the criteria used to determine the options presented and how any alternatives have been ruled out.</p>
212	Paragraph 2.2.3	Depth of cable in grid connection corridor	<p>The anticipated depth of the cable is described differently between chapters of the Scoping Report. For example, paragraph 2.2.3 describes a 2m deep trench, whereas chapter 14 (soils and agricultural land) suggests a depth of 1.2m (paragraph 14.2.2) or 1.5m (paragraph 14.7.3).</p> <p>The ES should be consistent in the description of parameters between chapters, in particular where the parameters are being used to describe a worst case / maximum design scenario.</p>
213	Paragraphs 2.3.1 – 2.3.6	Flexibility and the Rochdale Envelope	<p>The Inspectorate notes the applicant's intention to apply a 'Rochdale Envelope' approach to maintain flexibility within the design of the Proposed Development.</p> <p>The Inspectorate expects that at the point an application is made, the description of the proposed development will be sufficiently detailed to include the design, size, capacity, technology, and locations of the different elements of the proposed development or where</p>

ID	Ref	Description	Inspectorate's comments
			<p>details are not yet known, will set out the assumptions applied to the assessment in relation to these aspects.</p> <p>This should include the footprint and heights of the structures (relevant to existing ground levels), as well as land-use requirements for all elements and phases of the development.</p> <p>The description should be supported (as necessary) by figures, cross sections, and drawings which should be clearly and appropriately referenced.</p> <p>Where flexibility is sought, the ES should clearly set out and justify the maximum design parameters that would apply for each option assessed and how these have been used to inform an adequate assessment in the ES.</p>
214	Paragraph 2.3.32	Use of technical terminology	<p>The Scoping Report does not include an explanation for all potential optionality of technologies of the differences between the options given in all cases, for example the potential use of Alternating Current (AC) or Direct Current (DC) coupled Battery Energy Storage System (BESS).</p> <p>Where optionality remains in the design of the proposed development at the point of submissions, the differences between the possible options, including maximum design parameters, should clearly be described.</p>
215	Paragraph 2.3.42	Works at National Grid point of connection	<p>Whilst the Inspectorate notes that the timescales and final design of the proposed National Grid substation at Navenby (which the applicant intends to use as the point of connection) are not yet known, the ES should clearly describe the relationship between the proposed development and connected projects. This should include the extent to which the proposed development is dependent on their delivery and the development timelines and anticipated consenting routes of the other projects, with an explanation of how these will be coordinated.</p> <p>The ES should describe how the National Grid substation is either proposed to be constructed in a way to facilitate the connection from the proposed development, or whether if constructed first, any additional works are then required to enable connection.</p>

ID	Ref	Description	Inspectorate's comments
			If there is a requirement to accommodate flexibility within the (draft) DCO in order to facilitate connection of the proposed development to the national grid, the ES should confirm how this flexibility been considered and assessed in the relevant assessments.
21.6	Paragraph 2.3.44	Crossings of waterbodies, roads etc	<p>Natural and manmade features such as ditches, watercourses, infrastructure (including roads and rail), and sensitive habitats have the potential to be crossed during construction of the proposed development.</p> <p>The ES should identify which features will be crossed and at what locations, with reference to any accompanying figure(s). The ES should describe the types of crossings that are required, their scale and dimensions and the nature of any associated construction works (for example the use of Horizontal Directional Drilling).</p> <p>Where flexibility is deemed necessary this should be fully justified, and the ES should base assessments on the worst-case scenario and justify why this scenario would lead to the greatest environmental impact. Sufficient detail should be provided to inform a robust assessment of likely significant effects on relevant aspects / matters, including ecological receptors.</p> <p>Efforts should be made to agree the approach to crossings with the relevant consultation bodies.</p>
21.7	Paragraph 2.3.48	Consistency of units	Paragraph 2.3.48 states “storage.....will require an area equivalent to 32 of 40 feet high cube ISO containers on-site: around 12m in length x 2.5m in width x 3m in height”. Whilst it is presumed that the use of “32 of 40 feet high” is a typographic error, the ES should however ensure consistency in the units used (rather than providing both feet and metres) and ensure that parameters are clearly described and are consistent between chapters.
21.8	Section 2.4	Description of construction activities	<p>The ES should include details of how the construction would be phased, including the likely commencement date, duration and location of the required construction activities and the required workforce.</p> <p>The ES should describe the assumptions regarding the assessment of the construction phase, including the proposed construction activities (eg the proposed piling method and</p>

ID	Ref	Description	Inspectorate's comments
			whether open trench or trenchless techniques for crossings would be used), and the associated plant and machinery. The assessment should be based on a worst-case scenario.
21.9	Paragraph 2.4.4	Construction Compounds	The Scoping Report states that the proposed development would require temporary construction compounds within the site, however, the exact locations are yet to be determined. To ensure a robust assessment of likely significant effects, the ES should provide details regarding the number, location and dimensions of construction compounds, and include these in any relevant assessment such as construction phase flood risk.
21.10	Paragraphs 2.4.7 – 2.4.11	Construction access	<p>The ES should describe the proposed site entrance(s) and the routes to be used for all vehicular access during construction and operation of the proposed development, and this information should be clearly presented on supporting plans within the ES.</p> <p>The ES should describe and assess the potential impacts (both positive and negative) associated with any improvements/ changes to the access routes which are either required to facilitate construction of the proposed development or are required for restoration purposes on completion of the works.</p> <p>For the assessment of impacts during construction, the ES should explain how the proposed access route(s) relate to sensitive receptors.</p>
21.11	Paragraph 2.4.16	Mitigation and enhancement	<p>The ES should identify where measures are considered to be mitigation for potential effects as a result of the proposed development, and where measures are enhancement compared to the existing baseline conditions, and in relation to Biodiversity Net Gain (BNG), ensure that mitigation for loss of habitat is not double counted as enhancement.</p> <p>The ES should also demonstrate how the mitigation hierarchy has been followed.</p>
21.12	Section 2.5	Operational activities	The ES should describe the potential scope and duration of operational and maintenance works that would be required during the operation of the Proposed Development, including predicted vehicle movements and staffing numbers.

ID	Ref	Description	Inspectorate's comments
			<p>The proposals for ongoing management and maintenance of the land around and under the solar photovoltaic (PV) modules should be confirmed in the ES, including any vegetation management and animal grazing.</p> <p>Any potential adverse impacts of maintenance activities should also be assessed in the ES where significant effects are likely to occur.</p> <p>Proposals for maintaining vegetation around easements and the Public Rights of Way (PRoW) within the application site should also be described.</p>
21.13	Section 2.6	Decommissioning activities	<p>The ES should provide a proportionate description of the activities and works which are likely to be required to decommission the proposed development or extend its operational life, and the anticipated duration.</p> <p>The ES should clarify whether the site will be returned to its current use and condition, or the infrastructure that is retained beyond the lifespan of the Proposed Development should be clearly distinguished.</p>
21.14	N/A	Lighting	The ES should describe the lighting requirements for all elements and phases of the proposed development. It should be explained what measures are proposed to minimise light spill on human and ecological receptors.

2.2 EIA methodology and scope of assessment

(Scoping Report Sections 3, 4, 5, 17 and Appendix A)

ID	Ref	Description	Inspectorate's comments
221	Section 5.2	Full description of baseline environment	When describing the baseline for each technical chapter, the ES should ensure to use all relevant information to provide as detailed description as possible. For example, the Scoping Report at paragraph 10.5.4 (landscape and visual) gives an outline description of the topography, whereas the description would benefit from the greater level of topographic detail given in paragraph 9.5.7 (water environment).
222	Paragraph 5.3.7	Monitoring of mitigation measures	The ES should identify and describe any proposed monitoring of adverse effects and how the results of such monitoring would be utilised to inform any necessary remedial actions.
223	Paragraph 5.3.8	Mitigation for non-significant effects	The Scoping Report refers to additional mitigation being required where a significant effect is identified. The ES should also consider and identify opportunities to use additional mitigation to further reduce effects which are non-significant e.g. minor.
224	5.5.7 / 5.5.14	Professional judgement	The ES should clearly identify where professional judgement has been relied upon to determine the level of significance of effects. Any use of professional judgement to assess significance should be fully justified within the ES.
225	Section 5.6	Cumulative effects	The Inspectorate notes from the shapefile provided by the applicant that the proposed development has a direct overlap with Fosse Green Energy and Springwell Solar Farm NSIPs, and therefore these schemes should be included in the assessment of cumulative effects.

ID	Ref	Description	Inspectorate's comments
			<p>The ES should also detail how the interface between these schemes and the proposed development is to be managed, for example if the same land parcel is required for more than one scheme, and how capacity at the National Grid connection point is to be managed, including the consideration of alternative options.</p> <p>A number of consultation responses in appendix 2 also refer to specific developments which are required to be considered as part of the ES cumulative effects assessment.</p>
226	Section 5.6	Cumulative effects	<p>The Inspectorate is content with the proposed approach; however, the ES should also assess the potential for cumulative effects that may occur as a result of proposed mitigation for a specific environmental aspect or matter e.g. landscape and visual mitigation planting on buried archaeological assets etc.</p> <p>The Inspectorate wishes to draw the applicants attention to the consultation response from the Ministry of Defence (MoD) on this matter in relation to the potential for an increase in bird strike risk as a result of habitat enhancement / creation.</p>
227	Section 5.6	Cumulative effects	<p>The ES should fully justify the study area for cumulative sites with reference to relevant guidance and the likely extent of impacts. The ES should provide a clear justification for the extent of each Zone of Influence (ZoI) and how it captures the effects from the Proposed Development.</p>
228	Paragraph 5.6.1	Cumulative effects advice page	<p>The Inspectorate refers the applicant to the updated cumulative effects advice page, which has superseded advice note 17.</p>

ID	Ref	Description	Inspectorate's comments
229	Paragraphs 7.7.11 / 7.8.1	Access for field surveys	<p>The information given in paragraph 7.7.11 which indicates that site visit for setting would be from publicly accessible areas does not match the assumption in paragraph 7.8.1 which assumes full access to all locations.</p> <p>The ES should ensure to fully describe the assumptions and limitations of the assessments, including any planned surveys that could not be undertaken, and describe how these have been taken into account in the assessment.</p> <p>The ES should also, where possible, detail whether there are any surveys that are planned to take place post consent (if granted).</p>
2210	Throughout	Other assessments	<p>The Scoping Report provides information regarding other assessments which are outside the scope of EIA. These are:</p> <ul style="list-style-type: none"> • Habitats Regulations Assessment (8.3.4 – 8.3.8) • Biodiversity Net Gain (8.6.5 – 8.6.10) • Flood risk assessment (9.7.11 – 9.7.14) • Water framework directive (Appendix D) <p>Where there may be linkages between these assessments and EIA aspects, such as biodiversity and water resources, references should be clearly set out in the ES</p>
2211	N/A	Worst case scenario of parameters or works	<p>The Scoping Report appears to use a variable worst case scenario between chapters (for example sequential or concurrent construction across solar PV plots). Whilst the Inspectorate considers that this is an acceptable approach for NSIPs, each chapter should fully describe the worst case scenario assessed within that chapter, with reference to design parameters or construction timings / methodologies, with a justification for the scenario used.</p>

ID	Ref	Description	Inspectorate's comments
			<p>The ES should also provide a justification and details of the “peak construction” scenario where used (for example paragraph 13.5.5).</p>
2212	N/A	Sources of information as justification for scoping out	<p>The Scoping Report contain a number of instances (for example the entry for operational traffic noise in table 11-6) where specific criteria are given in order to justify scoping a matter out, however no source is given for this.</p> <p>The ES should include a clear description of the source of guidance or other methodological matters used.</p>
2213	N/A	Figures	<p>A number of figures which are intended to represent the study areas relevant to the chapter only show the study areas / receptors for the solar PV area and not the grid connection corridor.</p> <p>The ES should represent all relevant receptors and study areas, as it is noted that most chapters describe the baseline conditions of (and therefore proposes to assess) both areas.</p>
2214	Appendix A	Transboundary	<p>The Inspectorate on behalf of the SoS has considered the proposed development and concludes that the proposed development is unlikely to have a significant effect either alone or cumulatively on the environment in a European Economic Area State. In reaching this conclusion the Inspectorate has identified and considered the proposed development's likely impacts including consideration of potential pathways and the extent, magnitude, probability, duration, frequency and reversibility of the impacts.</p> <p>The Inspectorate considers that the likelihood of transboundary effects resulting from the proposed development is so low that it does not warrant the issue of a detailed transboundary screening. However, this position will remain under review and will have regard to any new or</p>

ID	Ref	Description	Inspectorate's comments
			<p>materially different information coming to light which may alter that decision.</p> <p>Note: The SoS' duty under regulation 32 of the 2017 EIA Regulations continues throughout the application process.</p> <p>The Inspectorate's screening of transboundary issues is based on the relevant considerations specified in the annex to its Advice Page 'Nationally Significant Infrastructure Projects: Advice on Transboundary Impacts and Process', links for which can be found in paragraph 1.0.7 above.</p>

3. ENVIRONMENTAL ASPECT COMMENTS

3.1 Climate change

(Scoping Report Section 6)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.1.1	N/A	N/A	No matters have been proposed to be scoped out of the assessment

ID	Ref	Description	Inspectorate's comments
3.12	Paragraph 6.2.24	Cross referencing to other documents	<p>The Scoping Report states that “the study area for the in-combination climate change impact assessment is as defined in each environmental assessment within the Preliminary Environmental Information Report (PEIR)”</p> <p>The Inspectorate is not clear why the PEIR is being referred to as it has not been published to date. The ES should ensure to fully describe all aspects relevant to each chapter, including study area, and aim to minimise, where possible, cross referencing to other documents outside of the ES. Any cross referencing retained should be clear and concise.</p>
3.13	Paragraph 6.6.19	Extreme weather events	The climate change risk assessment proposes to assess “extreme weather events”. The ES should present a detailed list of which events are considered under this term.

3.2 Cultural heritage

(Scoping Report Section 7 and Appendix C)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
321	Paragraphs 7.5.2, 7.6.3 and table 7-3	Non designated findspots recorded within the site	<p>On the basis of the information provided in the Scoping Report which indicates that the previously encountered findspots are no longer in situ, the Inspectorate is in agreement that these can be scoped out of further assessment.</p> <p>The ES should however detail how the findspots have been used to inform the baseline and the archaeological potential within the boundary of the proposed development.</p>

ID	Ref	Description	Inspectorate's comments
322	Paragraph 7.6.8	Consistency in description of the scope	<p>Paragraph 7.6.8 refers to no aspects being scoped out, however 7.5.2, 7.6.3 and summary table 7-3 seek to scope out findspots. As noted above, the inspectorate is in agreement to scope out findspots, however the ES should ensure the scope of each chapter is described in a consistent manner to avoid confusion.</p>

3.3 Ecology and nature conservation

(Scoping Report Section 8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
33.1	Table 8-7	<p>European sites:</p> <ul style="list-style-type: none"> • within 10 km of the Site • beyond 10 km from the Site (without mobile species as qualifying criteria) • up to 30 km from the Site with mobile species as qualifying criteria 	<p>The Scoping Report proposes to scope these matters out of assessment, as there are no European sites within 10 km of the proposed development that are designated for their biodiversity value. Paragraph 8.5.3 of the Scoping Report explains that the closest European site (Birklands and Bilhaugh Special Area of Conservation (SAC) which is designated for its old acidophilous oak woods) is approximately 33km west of the proposed development site.</p> <p>Paragraph 8.5.4 also describes that although the River Brant, which flows along the western boundary of the proposed development site, connects downstream to the River Witham and eventually flows into the Wash Special Protection Area (SPA) / Ramsar site and The Wash and North Norfolk Coast SAC, that these statutory designated sites are >70 km downstream of the proposed development. At this distance, the report considers that there are no potential impacts and the development will not have a likely significant effect upon these sites.</p> <p>Given the location of the proposed development, the Inspectorate agrees to scope these matter out of further assessment.</p>
33.2	Table 8-7	National sites beyond 5 km from the Site (without mobile species as qualifying criteria).	<p>The Scoping Report proposes to scope this matter out further assessment, as it states that beyond 5km there are no potential impact pathways during any phase of the proposed development.</p> <p>The Inspectorate is content with this approach and agrees to scope this matter out.</p>
33.3	Table 8-7	Non-statutory designated sites beyond 2km of the site	The Scoping Report proposes to scope this matter out further assessment, as it states that beyond 2km there are no potential impact pathways during any phase of the proposed development.

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The Inspectorate is content with this approach and agrees to scope this matter out.
3.34	Table 8-7	Common and widespread habitats of no conservation value	<p>The Scoping Report proposes to scope on-site habitats of no conservation value out of further assessment, and although reasoning for this proposal is limited, paragraph 8.5.10 describes that walkover surveys of the site in May and November 2024 established a majority of the proposed development site as arable farmland, which a review of aerial imagery confirming this. The Inspectorate is content to scope this matter out of further assessment, as it is noted that Habitats of Principal Importance (HaPI) within the Zol of the proposed development will be assessed.</p>
3.35	Table 8-7	Habitats outside of the Site	<p>Paragraph 8.5.12 of the Scoping Report explains that traditional orchards, wood pasture and parkland priority habitat, and good quality semi-improved grassland are all present within 2km of the proposed development.</p> <p>The Inspectorate also notes that Table 8-7 refers to the requirement to assess HaPI within the Zol / study area (both terms used), and refers to a number of species which are proposed to be assessed including off site impacts, and it is considered that these species may be vulnerable to changes or impacts to habitats outside the site.</p> <p>On the basis of the identified habitats and Scoping Report requirements to assess these, the Inspectorate is not in agreement that habitats outside of the site can be scoped out of further assessment.</p>
3.36	Table 8-7	<p>Common and widespread terrestrial invertebrate species of no conservation value</p> <p>Terrestrial invertebrate species outside of the Site</p>	<p>The Scoping Report proposes to scope these matters out of assessment, as the majority of the existing habitats on the current site will be retained as part of the proposed development.</p> <p>Additionally the Scoping Report states good practice methods will be followed during the construction phase to prevent effects to such species and their habitats.</p> <p>The Inspectorate is content with this approach and agrees to scope this matter out of further assessment.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
33.7	Table 8-7	Attraction of aquatic invertebrates to solar PV panels during operation	<p>Table 8-7 of the Scoping Report describes the proposed development site as not being located adjacent or near to any designated sites that support populations of notable aquatic invertebrates. However, paragraph 8.5.22 of the Scoping Report does state water bodies and ditches located within and close to the Site may support common and widespread amphibian species.</p> <p>Table 8-3 notes aquatic habitat and aquatic macroinvertebrates surveys will be undertaken up to 250m from the proposed development site, however there is no mention of aquatic invertebrates. Details of the surveys should be provided within the ES, or it should be demonstrated why aquatic invertebrate surveys are not required and potential likely significant effects on these species can be ruled out.</p>
33.8	Table 8-7	<p>Aquatic Macroinvertebrates - Common and widespread species of no conservation value</p> <p>Species outside of the Site</p>	<p>The Applicant proposes to scope this matter out of assessment, as the majority of existing habitats (e.g. watercourses and water bodies) will be retained on site as part of the proposed development.</p> <p>Additionally the Scoping Report states good practice methods will be followed during the construction phase to prevent effects to such species and their habitats.</p> <p>The Inspectorate is content with this approach and agrees to scope this matter out.</p>
33.9	Table 8-7	Potential collision / attraction to solar PV panels from breeding or non-breeding birds during operation.	The Scoping Report proposes to scope this matter out, as given the location of the proposed development large numbers of birds are not expected. The Scoping Report also states in Table 8-3 that surveys of breeding and non-breeding birds will confirm the usage of the site by birds, including of birds flying over the site. Assuming such surveys take place and confirm that there is a low risk of collision with solar panels, the Inspectorate agrees to scope this matter out.
33.10	Table 8-7	The requirement for two years' worth of data for	The Scoping Report proposes that a survey of non-breeding birds within a single winter period (between October and March) would be representative of the overall non-breeding bird population using the proposed development site. The report states this is primarily

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
		surveys of non-breeding birds	<p>because the site is not within 20km of any European or Ramsar suite designated for birds.</p> <p>However, the Scoping Report also describes in paragraph 8.5.14 that desk studies found over 60 species of bird (including specially protected bird species such as Peregrine Falcons, Hobby Falcons and Barn Owl) reportedly present within 2km of the proposed development site.</p> <p>The ES should provide a justification as to how it is considered that 1 year of survey data is considered to be representative, and state any agreement that has been reached with relevant consultees on this matter.</p>
3.3.11	Table 8-7	<p>Surveys for:</p> <ul style="list-style-type: none"> • Brown Hare • Hedgehog • Polecat • Harvest Mouse 	<p>Paragraph 8.5.21 of the report states that Brown Hare have been noted on-site already in the ecological surveys that have been conducted so far, and based upon the habitats at the existing site Hedgehog, and Harvest Mouse are likely to also be present. The report explains that incidental records of these species will be recorded during other ecological surveys but no specific surveying for these species is proposed.</p> <p>The Scoping Report proposes that in such case that the proposed development site falls within the known geographical range for these species, if there are desk study records of these species occurring within 2 km of the Site and there is suitable habitat on-site to support them, a precautionary approach of assuming presence on site will be followed and used in the ES assessments.</p> <p>Embedded mitigation measures are also proposed to ensure habitats are retained and not adversely effected. The Scoping Report states these measures will be formalised within the Construction Environmental Management Plan (CEMP) and secured as part of the dDCO requirements.</p> <p>In relation to polecat, the Scoping Report indicates that it is highly unlikely that this species would be present in the site boundary.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			The Inspectorate agrees with this approach and is content to scope the matter of specific surveys for these species out of further assessment.
3.3.12	Table 8-7	Other mammals, e.g. common and widespread species of no conservation value (such as Deer)	<p>This matter is proposed to be scope out as the applicant states the design of the perimeter fence will include gaps to allow mammals, including small deer to pass underneath at strategic locations to maintain ecological connectivity.</p> <p>The Inspectorate therefore agrees to scope this matter out. The ES should however detail how the design of fencing to enable this is secured in the draft DCO.</p>

ID	Ref	Description	Inspectorate's comments
3.3.13	NA	Confidential Annexes	<p>Public bodies have a responsibility to avoid releasing environmental information that could bring about harm to sensitive or vulnerable ecological features. Specific survey and assessment data relating to the presence and locations of species such as badgers, rare birds and plants that could be subject to disturbance, damage, persecution, or commercial exploitation resulting from publication of the information, should be provided in the ES as a confidential annex. All other assessment information should be included in an ES chapter, as normal, with a placeholder explaining that a confidential annex has been submitted to the Inspectorate and may be made available subject to request.</p>

3.4 Water environment

(Scoping Report Section 9 and Appendix D)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
34.1	Paragraph 9.1.3	Water dependent ecological sites	The Scoping Report refers to sites that are vulnerable due to changes to hydrology. The ES should also consider sites that are vulnerable to changes to hydrogeological conditions.
34.2	Table 9-3 and Paragraph 9.7.10	Nutrient Neutrality Assessment	Given the location of the proposed development is not within an area listed by Natural England as being within a nutrient neutrality catchment of designated sites, and no hydrological continuity has been identified between the proposed development and any such designated sites, the Inspectorate agrees to scope this matter out of further assessment.
34.3	Paragraph 9.8.8	Assessment of temporary works	The Scoping Report seeks to exclude an assessment of “temporary works”. In the absence of a definition of temporary works, the Inspectorate is not in agreement that these can be scoped out, as the construction phase as a whole is temporary in nature, and an assessment of all works within the construction phase is required.
34.4	Table 9-3 and Paragraph 9.8.10	Impact of foul water drainage on water supply	<p>The Scoping Report proposes to scope out the potential for impacts from foul drainage on water supply. However, as per the Environment Agency's consultation response in appendix 2, the description of the proposed plans for foul water contained in the Scoping Report is contradictory.</p> <p>The Inspectorate does not consider that sufficient detail has been provided regarding how foul water will be dealt with during construction and operation, and is therefore not currently in agreement that this can be scoped out of further assessment.</p> <p>The ES should clearly set out how foul water will be dealt with and include an assessment of these matters where there is potential for a likely significant effect (LSE) to occur or</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			demonstrate the absence of a likely significant effect with agreement from the relevant consultation bodies.
34.5	N/A	Effects of heat from operation of the proposed development	The applicants attention is drawn to the Environment Agency response in appendix 2 which indicates that the ES should consider the potential for impacts from heat generated by the proposed development to affect water quality, and is therefore required to be scoped into the assessment unless an absence of LSE can be demonstrated along with agreement with the relevant statutory consultees.

ID	Ref	Description	Inspectorate's comments
34.6	Paragraph 9.1.3	Clarity of scope where receptors are considered in multiple chapters	The ES should clearly specify the scope of each chapter where the same receptor is assessed in different chapters. In the example of water quality, the Scoping Report appears to suggest that effects from existing contamination would be assessed in chapter 16 (other environmental topics) and changes as a result of new water quality effects introduced by the proposed development would be within chapter 9, however the ES would benefit from a statement in each chapter confirming this approach.
34.7	Paragraph 9.7.14	Construction in Flood Zone 1 with no mitigation	The Scoping Report considers that development in Flood Zone 1 does not require any mitigation (to the proposed development). The ES should describe how the assessment has considered the potential for the proposed development to change the baseline flood conditions in these areas, and whether this requires mitigation to reduce flood risk from the proposed development during the construction, operation and decommissioning stages.
34.8	Paragraph 9.7.14	Differentiation between Flood Zones 3a and 3b and potential loss	The ES should differentiate between Flood Zones 3a and 3b in order to determine which parts of the site are located in areas considered as 'high probability of flooding' and 'functional floodplain'. Where development is to be located within Flood Zone 3, then an assessment of the floodplain loss should be made and floodplain compensation provided. This should include consideration of the cumulative losses from solar panel mountings.

ID	Ref	Description	Inspectorate's comments
		of functional floodplain	Essential infrastructure located within Flood Zone 3 should be designed and constructed to remain operational and safe in times of flood and throughout the lifetime of the Proposed Development, taking account of climate change.
34.9	N/A	N/A	The Environment Agency has published new flood and coastal erosion risk data in 2025 following the release of its "National assessment of flood and coastal erosion risk in England 2024". Further updates are also expected to follow. The applicant should ensure that assessments take account of updated data sets as these become available through Defra's Data Services Platform. Where relevant, the applicant is encouraged to liaise with the EA to determine the implications for project design and the scope of assessments.

3.5 Landscape and visual amenity

(Scoping Report Section 10)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
351	Paragraph 10.7.15	Residential Visual Amenity Assessment (RVAA)	<p>The Scoping Report states that it is not intended to undertake a residential amenity assessment, in line with Landscape Institute Technical Guidance Note 02/19, unless requested during consultation and agreement with respect to access is made.</p> <p>The Inspectorate refers the applicant to multiple responses in appendix 2 which refers to the requirements for the ES to provide a justification for the omission of an RVAA. Provided that the ES explains the baseline conditions which enables residential amenity to be discounted as a sensitive receptor in relation to visual impacts, the Inspectorate is in agreement that this can be scoped out of further assessment.</p>
352	Table 10-2 and paragraph 10.8.7	Lighting assessment	<p>The Scoping Report proposes to scope out lighting for the following reasons:</p> <ul style="list-style-type: none"> • during the construction phase no lighting is proposed between the hours of 19:00 and 07:00 • during operation the only visible lighting would be motion detection lighting at the substation when nighttime maintenance is required • any lighting will be directional and designed to minimise potential for light spillage beyond the Site, particularly towards houses, live traffic and ecological habitats in so far as it is reasonably practicable <p>Provided that the above control measures are secured in the dDCO, the Inspectorate is in agreement that an assessment of lighting can be scoped out of further assessment.</p>

ID	Ref	Description	Inspectorate's comments
353	Figure 10-1	Visibility of construction works within the grid connection corridor	Figure 10-1 does not appear to consider the visibility of construction works within the grid connection corridor. Where possible, the ES should represent the anticipated visibility of works within this area.
354	Paragraph 10.5.2	Representation of the “Lincoln Cliff” landscape feature	With reference to the anticipated viewpoints given in figure 10-2, it would be helpful to the reader if the Lincoln Cliff landscape feature could be represented on an accompanying figure in order to provide context to the viewpoints chosen within this feature, as it is understood to be at a higher elevation than surrounding land and therefore the proposed development may be more visible from this.
355	Paragraph 10.7.7	Seasonal assessments	The Scoping Report proposes to assess construction, year 1 and decommissioning in winter, and year 15 in summer. The ES should provide a description of how the year 15 assessment has considered the potential worst case of a winter assessment as provided for the other phases, and a justification for the use of summer for the year 15 assessment. The ES should demonstrate, where possible, agreement of topic specific methodologies with relevant statutory consultees.
356	Paragraph 10.8.2	Medium and long term effects	The Scoping Report indicates that medium term effects are 1 – 5 years, and long term more than 5 years. The ES should explain the rationale behind these durations given that the methodology proposes assessments at year 1 and year 15, rather than year 5.

3.6 Noise and vibration

(Scoping Report Section 11)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
361	Paragraph 11.1.2	In combination effects to ecological and heritage receptors	<p>The Inspectorate is unclear as to why the Scoping Report only refers to in combination effects only from noise and vibration to ecological and heritage receptors, and why this matter does not appear to be referred to in the heritage chapter in any form.</p> <p>Whilst the Inspectorate is in agreement with the approach to assess these receptors in the individual chapters rather than in noise and vibration, the assessment should include all types of effect relevant to those receptors.</p>
362	Table 11-6 and paragraph 11.6.2	Construction traffic - vibration	<p>The Scoping Report proposes to scope this matter out on the basis that significant effects are not considered to be likely. The Scoping Report refers to the Design Manual for Roads and Bridges (DMRB LA 111), which states that operational vibration should be scoped out of the assessment methodology as a maintained road surface will be free of irregularities as part of project design and under general maintenance.</p> <p>Given the predicted level of traffic generated by the proposed development during construction, the Inspectorate is content to scope this matter out of further assessment on the provision that the ES description of the proposed development confirms the construction vehicle types and numbers (with reference to thresholds within guidance) to justify this position.</p>
363	Table 11-6	Operational traffic – noise	<p>The Scoping Report proposes to scope this matter out on the basis that the predicted level of traffic generated by the proposed development during the operational phase would be minimal and not sufficient enough to result in a 1dB increase in noise levels.</p> <p>Given the predicted level of traffic generated by the proposed development during operation, the Inspectorate is content to scope this matter out of further assessment on the provision that the ES description of the proposed development confirms the operation</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			vehicle types and numbers (with reference to thresholds within guidance) to justify this position.
364	Table 11-6 and paragraph 11.6.8	Operational vibration	<p>The Scoping Report proposes to scope this matter out on the basis that operational plant would not give rise to 'perceptible' levels of ground-borne vibration.</p> <p>Considering the characteristics of the proposed development, the Inspectorate is content for this matter to be scoped out. However, the ES should demonstrate that operational plant and equipment is of a type and to be used in locations unlikely to result in significant impacts on sensitive receptors.</p>
365	Table 11-6 and paragraph 11.2.9	Noise and vibration effects on PRoW users – all phases	<p>The Scoping Report proposes to scope this matter out given that the linear nature of the PRoWs, the varying ambient noise levels, and their temporary uses are not considered to have a likely significant effect on the users' experience, health or quality of life.</p> <p>Furthermore, the Scoping Report states that all reasonable means to minimise the effects of noise on PRoW users are to be taken during all phases of the proposed development.</p> <p>On this basis, the Inspectorate agrees to scope this matter out of further assessment on the provision that the ES includes information required to demonstrate the absence of a likely significant effect, such as providing evidence that the type and number of vehicles and plant and construction techniques would not exceed the relevant thresholds in guidance which would require detailed assessment to justify this. Any proposed mitigation measures should also be described, and their delivery secured through the DCO or other legal mechanism.</p> <p>The ES should also consider the potential for in-combination effects (referred to in the Scoping Report as effect interactions) to users of PRoWs and the potential for non-significant individual effects to combine and lead to potential LSE (for example noise, vibration, dust and visual impacts).</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
366	Paragraph 11.8.4	Ground borne vibrating propagation	<p>The Scoping Report states “no predictions of ground-borne vibration propagation are proposed”. In the absence of any further explanation as to the nature of this effect, the Inspectorate is unclear if this is intended to form part of the scope of the vibration assessment, and if so, why predictions of the vibration are not proposed.</p> <p>The ES should ensure to provide a detailed description of potential effects and the methodology used, including any assumptions and limitations of the assessment including from an absence of quantified data.</p>

ID	Ref	Description	Inspectorate's comments
367	Paragraphs 11.2.5 and 11.2.6	Sensitive receptors	<p>The Scoping Report states that the finalised list of sensitive receptors will be selected through the EIA Scoping process and consultation with key stakeholders.</p> <p>The ES should explain the basis on which sensitive receptor locations are determined to be representative and include a plan showing the location of all receptors identified as part of the assessment in order to aid understanding of the potential significant effects relating to noise.</p>

3.7 Socioeconomics and land use

(Scoping Report Section 12)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.7.1	Table 12-2 and Paragraphs 12.5.23 and 12.6.3	Minerals and safeguarding – all phases	<p>The Scoping Report proposes to scope this matter out on the basis that land required for the installation of the grid connection, which passes through a Mineral Safeguarding Area (MSA) for limestone, is considered to be very limited.</p> <p>In the absence of information such as evidence demonstrating clear agreement with relevant statutory bodies (the applicant's attention is drawn to the response of Lincolnshire County Council in Appendix 2), the Inspectorate is not in agreement to scope this matter out of further assessment.</p> <p>Accordingly, the ES should include a Minerals Assessment or information demonstrating agreement with the relevant consultation bodies and the absence of a LSE.</p>
3.7.2	N/A	Loss of woodland funded by Forestry Commission grants	<p>The applicants attention is drawn to the consultation response from the Forestry Commission in relation to the potential loss of woodland which was planted using grants.</p> <p>Whilst this matter is not referred to within the Scoping Report, the Inspectorate advises the applicant to seek to agree any requirement for this to be assessed within the ES with the Forestry Commission.</p> <p>The ES should also consider whether there are any implications for other related chapters such as ecology and nature conservation, landscape and visual amenity etc.</p>

ID	Ref	Description	Inspectorate's comments
3.73	Paragraph 12.4.1	Consultation	<p>The Inspectorate is unclear why this chapter states “no other consultation will be undertaken specifically to inform the assessment of socio-economic and land use impacts”.</p> <p>The ES must demonstrate the consultation undertaken as part of each chapter, and refers the applicant to the list of consultees provided to it as part of this Scoping Opinion, and the consultation responses in appendix 2, which includes reference to socioeconomics and land use matters.</p>
3.74	Paragraph 12.6.1	Employment	<p>The Scoping Report states that the ES will consider the temporary employment during the construction and decommissioning phases and the creation of long-term employment opportunities once the scheme is operational. The Inspectorate advises that the number and types of jobs created, including the split between direct and indirect job opportunities for positions with contractors and suppliers, should be estimated in the ES and considered in the context of the available workforce in the area during each relevant phase of the proposed development</p>
3.75	Paragraphs 12.6.4 and 12.6.5	Mitigation	<p>The Scoping Report states that embedded mitigation measures will be included in the design where practicable to help avoid, prevent or reduce effects on socio-economics. For avoidance of doubt, the ES should outline any embedded mitigation measures envisioned to avoid significant effects on socio-economic receptors.</p>

3.8 Traffic and movement

(Scoping Report Section 13)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
38.1	Table 13-13	Hazardous loads – construction phase	<p>The Scoping Report proposes to scope this matter out on the basis that no hazardous loads are expected as part of the construction phase and that there are no nearby road features which pose a risk beyond which would be expected on the general highway network.</p> <p>Considering the characteristics of the proposed development, the Inspectorate is content for this matter to be scoped out. However, the ES should confirm that no hazardous loads are to be included as part of the construction phase.</p>
38.2	Table 13-13; paragraphs 13.6.8 and 13.6.9	Assessment of the operational phase	<p>The Scoping Report proposes to scope this matter out on the basis that vehicle numbers are predicted to be low and therefore no likely significant effects are predicted.</p> <p>The Inspectorate agrees that operational movements are likely to be low and therefore unlikely to give rise to any likely significant effects, and is therefore content to scope this matter out of further assessment.</p> <p>The ES description of the proposed development should however confirm the operational vehicle types and number (with reference to thresholds within relevant guidance) to justify this position.</p>
38.3	Table 13-13; paragraphs 13.6.10 and 13.6.11	Assessment for the decommissioning phase	<p>The Scoping Report proposes to scope this matter out on the basis that traffic generated by the decommissioning phase is usually similar or less than the traffic generated by construction phase. Therefore, the impacts due to the decommissioning phase are considered to be adequately covered by the construction phase assessment.</p> <p>The Inspectorate is content to scope this matter out of further assessment on the provision that the ES description of the proposed development confirms estimated decommissioning</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
			vehicle types and number (with reference to thresholds within relevant guidance) to justify this position.
384	NA	Abnormal Indivisible Loads (AILs)	The ES should detail whether any AIL movements are required and assess any potential likely significant effects.

ID	Ref	Description	Inspectorate's comments
385	Paragraph 13.2.1 – 13.2.3	Study area	The ES should confirm the final study area and final key roads included in the assessment and explain how they have been identified. In addition to agreement with the local highway authority, consideration should also be given to guidance and the extent of the potential impacts and likely receptors, both human and ecological. A plan illustrating the extent of the study area, the expected route(s) of construction traffic and the anticipated number of vehicle movements (including vehicle type, peak hours and daily movements) should also be included in the ES.
386	Para 13.7.2	Baseline conditions – traffic surveys	The ES should identify the locations of traffic count surveys (once agreed with Lincolnshire County Council and National Highways), explain how these locations were selected and confirm precise details of when the counts were undertaken. To provide assurance that the assessment of likely significant effect is supported by robust dataset, the ES should include a justification to support the extent of the survey effort, including why the traffic data collected is considered to represent the typical (neutral) flow conditions of the network.
387	Paragraphs 13.5.1- 13.5.13	Baseline	The Scoping Report states that the highway networks ability to accommodate the development construction traffic will be assessed and reported in a Transport Assessment Technical Note and will include traffic flows and highway safety. The assessment should

ID	Ref	Description	Inspectorate's comments
			also describe the baseline environment in full including pedestrian/user counts, existing land uses and existing site access.

3.9 Soils and agricultural land

(Scoping Report Section 14)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
391	Paragraph 14.7.1 and Table 14-4	Agricultural land and land use - decommissioning	<p>The Scoping Report states that decommissioning effects are expected to be similar to or of a lesser magnitude than the construction effects, and would also be controlled by the use of a Decommissioning Environmental Management Plan (DEMP). However, with reference to the consultation responses provided by Natural England and Lincolnshire County Council, it is not currently known whether the decommissioning stage would require works in areas that had not previously been subject to impacts during construction and operation, for example new access / haul roads.</p> <p>The Inspectorate is therefore not in agreement to scope out agricultural land and land use during decommissioning.</p>
392	Paragraph 14.7.1 and Table 14-4	Soil resource quality - decommissioning	<p>Paragraph 14.6.14 of the Scoping Report states that the areas of ecological enhancement and habitat creation proposed within the proposed development are expected to remain after decommissioning, and that loss of this land from agriculture will likely have soil functional benefits on the site. However, with reference to the consultation responses provided by Natural England and Lincolnshire County Council, it is not currently known whether the decommissioning stage would require works in areas that had not previously been subject to impacts during construction and operation, for example new access / haul roads.</p> <p>The Inspectorate is therefore not in agreement to scope out soil resource quality during decommissioning.</p>

ID	Ref	Description	Inspectorate's comments
393	Paragraph 14.2.1	Study Area	<p>The Scoping Report states that the study area for the soils and agricultural land assessment covers the proposed development site only, and there is no buffer as it describes the impacts from the development as only occurring on-site. The ES should consider any adjoining agricultural land if that might be affected (for example from changes to drainage patterns) and should provide a clear justification for the extent of the study area chosen and how this relates to the extent of the likely impacts. The study area should be clearly depicted on figures to aid understanding.</p>
394	N/A	Agricultural land	<p>The ES should contain a clear tabulation of the areas of land in each Best Most Versatile (BMV) classification to be temporarily or permanently lost as a result of the proposed development, with reference to accompanying map(s) depicting the grades. Specific justification for the use of the land by grade should be provided.</p> <p>Consideration should be given to the use of BMV land in the applicant's discussion of alternatives.</p>

3.10 Materials and waste

(Scoping Report Section 15)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.10.1	Paragraph 15.9.1 and Table 15-15	Changes in availability of materials	<p>The Scoping Report seeks to scope out an assessment of material availability on the basis that the proposed development is unlikely to require more than 10% of the national baseline availability of materials (which based on table 15-10 correlates to a major effect). However, table 15-10 categorises a moderate adverse effect as 6-10% of national availability, and based on the overarching methodology of the scoping report and the topic specific methodology in table 15-14, a moderate effect is considered to be significant.</p> <p>As the material use is not specified at this stage and therefore has the potential to be of a moderate level of effect, the Inspectorate is therefore not in agreement that an assessment of material availability can be scoped out of the ES. The ES should either incorporate an assessment or provide further justification to exclude the potential for significant effects including any potential for moderate adverse effects from the anticipated material use.</p>
3.102	Paragraph 15.9.1 Table 15-15	Waste arising from extraction, processing and manufacture of construction components and products	<p>The Scoping Report indicates that the construction components and products required for the proposed development are likely developed in a manufacturing environment with their own waste management plans, facilities and supply chain. The Scoping Report describes how these are also potentially developed in different regions of the UK or the world and therefore considers the matter to be outside of the geographical scope of this study.</p> <p>The Inspectorate is in agreement that waste arising from processes outside of the proposed development is not the responsibility of the applicant, and is therefore in agreement that waste arising from extraction, processing and manufacture of construction components and products can be scoped out of further assessment.</p>

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.103	Paragraph 15.9.1 Table 15-15	Other environmental impacts associated with the management of waste from the proposed development	<p>The Scoping Report states that other environmental impacts associated with the management of waste from the proposed development e.g., on water resources, air quality, noise or traffic resulting from the generation, handling, on-site temporary storage or off-site transport of materials and waste are to be assessed separately in other relevant sections of the ES.</p> <p>The Inspectorate is in agreement with this approach, and therefore agrees that other environmental impacts associated with the management of waste from the proposed development can be scoped out of the materials and waste chapter.</p>
3.104	Paragraph 15.9.1 Table 15-15	Changes to safeguarded mineral and waste sites	<p>The Scoping Report indicates that there are no safeguarded mineral or waste sites (referred to as site specific mineral safeguarding areas, allocated mineral sites, allocated waste site and allocated waste areas) within the site boundary.</p> <p>The Inspectorate therefore agrees to scope this matter out of further assessment. As noted above in the socioeconomics and land use section 3.7, an assessment of effects on the wider MSA is required to be scoped in.</p>

ID	Ref	Description	Inspectorate's comments
3.105	Paragraphs 15.6.6 - 15.6.7	Site waste management plan and decommissioning environmental management plan	<p>Within the relevant management plans which would refer to waste management during decommissioning, the applicant should outline the anticipated process of waste management, and how these plans will seek to maximise recycling and minimise the secondary impacts associated with the decommissioning process.</p> <p>This should include (but not be limited to) potential emissions from transporting panels and infrastructure, and any potential implications arising through the waste treatment processes, including cumulative effects (given the proximity to and similar timescales of operation and decommissioning of other NSIP and TCPA scale solar farms in the Lincolnshire area).</p>

ID	Ref	Description	Inspectorate's comments
3.106	Paragraph 15.7.3	Definition of effects as temporary	The Inspectorate is unclear how the applicant can be sure at this stage that effects on material availability would be temporary in nature, as unless the materials have a 100% recycle, reuse or recovery rate at the point where they are no longer utilised for the proposed development, the use of materials would have a potentially permanent effect. The ES should clearly define how an effect could be considered as temporary.

3.11 Other topics – Air quality

(Scoping Report Section 16.2)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.11.1	Paragraph 16.2.15	Plant emissions – construction and decommissioning phase	<p>The Scoping Report proposes to scope out plant emissions on the basis that these are likely to represent only a minor source of the overall emissions relative to the ambient local conditions in the vicinity of the site boundary.</p> <p>The Inspectorate is in agreement with this approach and that emissions from construction plant can be scoped out of further assessment, however the project description chapter of the ES should clearly set out the likely number and type of plant required for construction and decommissioning.</p>
3.11.2	Paragraph 16.2.16	Vehicle emissions – construction and decommissioning phase	<p>The Scoping Report proposes to scope out vehicle emissions on the basis that the traffic movements are anticipated to fall below the relevant criteria as set out in the Institute of Air Quality Management (IAQM) guidance.</p> <p>The Inspectorate is in agreement with this approach and that construction vehicle emissions can be scoped out of further assessment, subject to confirmation in the ES that the proposed vehicle number alone or cumulatively with other proposals on relevant links will not exceed the relevant IAQM thresholds.</p> <p>The project description chapter of the ES should clearly set out the likely number and type of vehicles required for construction and decommissioning.</p>
3.11.3	Paragraph 16.2.17 – 16.2.20	Changes in vehicle emissions – operation phase	<p>The Scoping Report proposes to scope this matter out on the basis that vehicle movements would be minimal during the operational phase and would only be required for replacement infrastructure and minor maintenance related activities.</p> <p>The Inspectorate agrees that operational movements are likely to be low and therefore unlikely to give rise to significant effects. The Inspectorate is therefore in agreement with this approach and that operational vehicle emissions can be scoped out of further assessment, subject to confirmation in the ES that the proposed vehicle number alone or</p>

			cumulatively with other proposals on relevant links will not exceed the relevant IAQM thresholds.
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ID	Ref	Description	Inspectorate's comments
3.114	N/A	N/A	The Applicant's attention is drawn to the Defra advice 'PM _{2.5} Targets: Interim Planning Guidance'. The ES should explain how key sources of air pollution within the Proposed Development have been identified and how action has been taken to minimise emissions of PM _{2.5} or its precursors.

3.12 Other topics – Human health

(Scoping Report Section 16.3)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.121	Paragraph 16.3.12	Human health	<p>On the basis that the relevant technical chapters of the ES will consider the potential effects of human health within their own assessment, the Inspectorate is in agreement that a standalone assessment on human health is not required.</p> <p>The ES should however clearly signpost where impacts relating to human health have been considered in the relevant technical chapters.</p>

ID	Ref	Description	Inspectorate's comments
3.122	N/A	N/A	N/A

3.13 Other topics – Glint and glare

(Scoping Report Section 16.4)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.13.1	Paragraph 16.4.6	Construction and decommissioning activities	<p>The Scoping Report seeks to scope out the construction and decommissioning phases as these are to be controlled by measures in the CEMP and DEMP, and would either involve the presence of only a partial volume of the final solar panel numbers during each phase and therefore effects would be equal to or less than operation.</p> <p>The Inspectorate is in agreement with this approach and that the construction and decommissioning phases can be scoped out of the glint and glare assessment.</p>
3.13.2	Paragraph 16.4.8	Aviation matters	<p>The Scoping Report describes the location of Royal Airforce Station Waddington as approximately 8km north of the proposed development site. The applicant explains they will liaise with the MoD with regards to flight activities and, should the MoD agree, propose to scope aviation matters out of the glint and glare assessment.</p> <p>The Inspectorate is content with this approach and (with reference to the MoD consultation response in appendix 2), agrees to scope this matter out. The ES should however refer to how glint and glare to other aviation receptors has been factored into the design of the proposed development, as it is noted that paragraph 11.5.2 refers to the Foston Airfield / Manor House Farm Airstrip and RAF Cranwell airbase, the exact locations of which are not given.</p> <p>The applicant is also referred to major accidents and disasters discussed at section 3.15 below.</p>

ID	Ref	Description	Inspectorate's comments
3.13.3	N/A	N/A	N/A

3.14 Other topics – Ground conditions

(Scoping Report Section 16.5)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.14.1	Paragraph 16.5.29	Operation and maintenance activities	<p>The Inspectorate agrees to scope this matter out given that such maintenance activities during the operational phase will be managed through an Operational Environmental Management Plan (OEMP), which will be prepared following any grant of the DCO, and which will be in accordance with the Framework OEMP submitted with the DCO application.</p> <p>For the avoidance of doubt as it is not specifically stated, the construction phase should be scoped in for assessment. The applicants attention is drawn to the detail given in the EA response in relation to the required scoped and technical detail of the ground conditions assessment.</p>

ID	Ref	Description	Inspectorate's comments
3.14.2	Paragraph 16.5.3	100m study area	The ES should provide a justification of the use of 100m study area for potential sources of contamination, as an assessment of ground conditions typically utilises a study area of 250m.
3.14.3	Paragraph 16.5.22	Description of the baseline environment	<p>The Scoping Report states “the site is located within the Brant Lower Water Body (Moderate Ecological Status in 2022) which is adjacent to the west of the site”.</p> <p>The ES should ensure to provide a clear description of the baseline environment and sensitive receptors including whether they are within the site or study area.</p>

3.15 Other topics – Major accidents and disasters

(Scoping Report Section 16.6 and Appendix B)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.151	Section 16.6, paragraphs 16.6.8 / 16.6.10	Standalone chapter for Major Accidents and Disasters	<p>The Scoping Report proposes to scope this matter out on the basis that the scheme is not considered to be vulnerable or give rise to significant impacts in relation to major accidents and disasters. The Inspectorate notes that certain potential risks arising due to the proposed development are considered through other aspect chapters (for example flood risk, traffic and movements, telecommunications and utilities, and glint and glare).</p> <p>The Inspectorate has considered the characteristics of the proposed development and is content with this approach. However, the ES should clearly signpost where these risks are assessed in other chapters and where any relevant mitigation measures are secured, if required.</p>
3.152	16.6 / Appendix B	<p>1. Geological disasters scoped out of long list:</p> <ul style="list-style-type: none"> • 1.1 Landslides • 1.2 Earthquakes • 1.3 Sinkholes 	<p>The Scoping Report proposes to scope out landslides on the basis that this will be considered as part of the geotechnical design, the flat nature of the land on which the proposed development is located on, the scheme is not considered to increase landslip risks onsite or elsewhere, and the erosion potential of soil or land stability will not significantly change.</p> <p>The Scoping Report proposes to scope out earthquakes on the basis that the scheme is not located within an active geological area.</p> <p>The Scoping Report proposes to scope out sinkholes on the basis that this will be considered as part of the geotechnical design and within the construction method and scheme design.</p> <p>The Inspectorate has considered the characteristics and location of the proposed development and is in agreement that these geological events can be scoped out of further assessment.</p>

3.153	16.6 / Appendix B	<p>2. Hydrological disasters scoped out at long list:</p> <ul style="list-style-type: none"> • 2.2 Limnic eruptions • 2.3 Tsunami / storm surge <p>2. Hydrological disasters scoped out at short list tables 16-3 and 16-4</p> <ul style="list-style-type: none"> • 2.1 Floods 	<p>The Scoping Report proposes to scope out limnic eruptions and tsunami / storm surge due to the location of the proposed development. The Inspectorate is in agreement with this approach.</p> <p>The Scoping Report proposes to scope out floods on the basis that this potential risk is covered within the Flood Risk Assessment and the relevant ES aspect chapter. The Inspectorate is in agreement with this approach, however, the ES should clearly signpost where flood risks are assessed in other chapters and where any relevant mitigation measures are secured, if required. Flood risks should also include an assessment of the potential for increased precipitation due to climate change.</p>
3.154	16.6 / Appendix B	<p>3. Meteorological Disasters scoped out at long list:</p> <ul style="list-style-type: none"> • 3.1 Blizzards • 3.2 Cyclonic storms • 3.3 Drought • 3.4 Thunderstorms • 3.5 Hailstorms • 3.6 Heatwaves • 3.7 Tornadoes • 3.9 Air quality events <p>3. Meteorological Disasters scoped out at short list tables 16-3 and 16-4:</p> <ul style="list-style-type: none"> • 3.8 Fires – Also on shortlist at table 16-3 and 16-4 	<p>The Scoping Report proposes to scope out blizzards, cyclonic storms, droughts, thunderstorms, hailstorms, heat waves, and tornadoes on the basis that the proposed development is not particularly vulnerable to the potential effects associated or is no more vulnerable than any other development. The proposed development will also be designed / will include control systems to reduce such risks (where relevant).</p> <p>The Inspectorate is in agreement that these may be scoped out, given the justifications provided, and on the basis that where relevant, they are assessed within the climate chapter as noted to be required in the Scoping Report.</p> <p>The Scoping Report proposes to scope out air quality events on the basis that the scheme is not located within any Air Quality Management Areas (AQMAs) and the implementation of a CEMP which will manage the emissions during construction and decommissioning.</p> <p>The Scoping Report proposes to scope out fires (including risk from air quality) on the basis that a Framework Battery Fire Safety Management Plan will be in place to minimise the risk of fires associated to the battery system, and the design of the proposed development will include measures to minimise the risk of fires such as a cooling system and adequate separation between battery banks.</p>

			<p>On the basis of the information provided and the use of relevant management plans, the Inspectorate is therefore in agreement that air quality and fire safety can be scoped out of further assessment.</p>
3.15.5	16.6 / Appendix B	<p>4. Transport disasters scoped out at short list tables 16-3 and 16-4:</p> <ul style="list-style-type: none"> • 4.1 Road accidents (including spillage from hazardous loads) • 4.2 Rail Accidents • 4.3 Aircraft disasters 	<p>The Scoping Report proposes to scope out road accidents on the basis that:</p> <ul style="list-style-type: none"> • risks associated to road collisions and accidents are to be covered in the Transport Assessment • risks posed by spillage from hazardous loads due to road accidents during construction or decommissioning are no greater than would be normally expected on the general highway network • general risks of spillages of hazardous materials/chemicals will be considered in the water chapter of the ES and • the potential for glint and glare to affect road users will be considered in a technical appendix to the ES, where relevant. <p>The Inspectorate is in agreement that road accidents can be scoped out of further assessment within major accidents and disasters.</p> <p>The Scoping Report proposes to scope out rail accidents on the basis that the site is not located close to any railway lines and glint and glare related effects are to be considered within a technical appendix of the ES (if relevant). The Inspectorate is in agreement that rail accidents can be scoped out of further assessment.</p> <p>The Scoping Report proposes to scope out aircraft disasters on the basis that <i>“there is no evidence that glint and glare from solar farms results in significant impairment on aircraft safety. Therefore, unless a significant impairment can be demonstrated, the Secretary of State is unlikely to give any more than limited weight to claims of aviation interference because of glint and glare from solar farms”</i>.</p>

			<p>However, whilst the Inspectorate is in agreement (as per section 3.13 above) in relation to glint and glare, the applicants attention is drawn to the MODs response at appendix 2, which notes that its main concern is in relation to bird strikes associated with a potential increase in suitable habitat.</p> <p>The Inspectorate is in agreement that aircraft accidents in relation to major accidents and disasters can be scoped out of the assessment provided that the ES provides details of the proposed mitigation, enhancement and BNG measures proposed which may result in an increase in the local bird population, and defines how the potential for bird strikes has informed the design / location of this mitigation.</p> <p>The ES should, where possible, demonstrate consultation and agreement with the MoD and other consultees relevant to aviation (and keep any requirements to scope this in under review), as the Inspectorate notes the proximity to the MoD sites, and as referred to in paragraph 11.5.2, the Foston Airfield / Manor House Farm Airstrip.</p>
3.156	16.6 / Appendix B	<p>5. Engineering accidents / failures scoped out at long list</p> <ul style="list-style-type: none"> • 5.1 Bridge failure • 5.2 Tunnel failure or fire • 5.5 Mast or tower collapse • 5.6 Building failure or fire <p>5. Engineering accidents / failures scoped out at shortlist tables 16-3 and 16-4</p> <ul style="list-style-type: none"> • 5.3 Dam failure • 5.4 Flood defence failure 	<p>The Scoping Report proposes to scope out bridge failure on the basis that no bridges are to be used or constructed as part of the scheme, and tunnel failure or fire on the basis that there are no tunnels near the proposed development. The Inspectorate is in agreement that this matter can be scoped out of further assessment.</p> <p>The Scoping Report proposes to scope out mast and tower collapse on the basis that there are none near the proposed development. The Inspectorate is in agreement that this matter can be scoped out of further assessment, however the proposed development description should include details of any masts or towers which are to be constructed and how these have been designed to avoid the potential for causing major accidents and disasters.</p> <p>The Scoping Report proposes to scope out building failure or fire on the basis that there are no buildings close enough to be affected. The Inspectorate has</p>

		<ul style="list-style-type: none"> 5.7 Utilities failure - Also on shortlist at table 16-3 and 16-4 	<p>considered the characteristics of the proposed development and is in agreement that this matter can be scoped out of further assessment.</p> <p>The Scoping Report proposes to scope out dam failures and flood defence failures on the basis that these will be covered in the Flood Risk Assessment and reported in the ES. The Inspectorate has considered the characteristics of the proposed development and is content with this approach. However, the ES should clearly signpost where these risks are assessed in other chapters and where any relevant mitigation measures are secured, if required.</p> <p>The Scoping Report proposes to scope out utilities failures on the basis that the layout design of the scheme will be informed through consultation and a desk based study. The Inspectorate is content to scope this matter out provided that the ES sets out the findings of the consultation process and desk-based assessment and how this has been taken into account in the design to mitigate impacts. On this matter, the applicants attention is drawn to Anglian Waters consultation response in appendix 2 which refers to a geographic overlap between the proposed development and a major pipeline project being developed.</p>
3.15.7	16.6 / Appendix B	<p>6. Industrial accidents scoped out at long list:</p> <ul style="list-style-type: none"> 6.1 Defence 6.2 Energy (fossil fuels) 6.3 Nuclear 6.4 Oil and gas refinery or storage 6.5 Food 6.6 Chemicals 6.7 Manufacturing 	<p>The Scoping Report proposes to scope out industrial accidents related to the defence industry, energy industry (fossil fuel), nuclear power, oil and gas refinery/storage, food industry, chemical industry, and manufacturing industry on the basis that the proposed development is not located near to any locations of these relevant industries.</p> <p>The Scoping Report proposes to scope out mining/extractive industry on the basis that risks will be designed out as part of the geotechnical design.</p> <p>The Inspectorate has considered the characteristics of the proposed development and is in agreement that this matter can be scoped out of further assessment.</p>

		6. Industrial accidents scoped out at short list tables 16-3 and 16-4 <ul style="list-style-type: none"> • 6.8 Mining 	
3.158	16.6 / Appendix B	7. Terrorism, crime and civil unrest	<p>The Scoping Report proposes to scope this matter out on the basis that the scheme is unlikely to be targeted due to its rural location and low number of exposed targets.</p> <p>The Inspectorate has considered the characteristics of the proposed development and is in agreement that this matter can be scoped out of further assessment.</p>
3.159	16.6 / Appendix B	8. War	<p>The Scoping Report proposes to scope this matter out as the scheme is stated to be no more vulnerable than any other infrastructure.</p> <p>The Inspectorate has considered the characteristics of the proposed development and is in agreement that this matter can be scoped out of further assessment.</p>
3.1510	16.6 / Appendix B	9. Disease scoped out at long list: <ul style="list-style-type: none"> • 9.1 Human • 9.2 Animal 9. Disease scoped out at short list tables 16-3 and 16-4 <ul style="list-style-type: none"> • 9.3 Plant- Also on shortlist at table 16-3 and 16-4 	<p>The Scoping Report proposes to scope out human disease and animal disease as the scheme is stated to be no more vulnerable than any other infrastructure. The Inspectorate has considered the characteristics of the proposed development and is in agreement that this matter can be scoped out of further assessment.</p> <p>The Scoping Report proposes to scope out plant diseases on the basis that a Biosecurity Plan will be in place prior to construction and decommissioning to ensure no invasive species are brought onto the site, exported out or spread within it and will contain measures such as cleaning and/or disinfecting machinery in high-risk areas. On this basis, the Inspectorate agrees to scope this matter out, though the ES should provide details of the proposed mitigation measures to be included in the Biosecurity Plan and identify how these plans are to be secured.</p>

ID	Ref	Description	Inspectorate's comments
3.1511	N/A	N/A	N/A

3.16 Other topics – Telecommunications, television reception and utilities

(Scoping Report Section 16.7)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.16.1	Paragraphs 16.7.1 – 16.7.4	Telecommunications, Television Reception and Utilities	The Inspectorate is content to scope these aspects as a standalone chapter provided that the ES, within the other topics chapter, sets out the findings of the consultation and desk-based study and how this has been taken into account in the design to mitigate potential impacts.

ID	Ref	Description	Inspectorate's comments
3.16.2	N/A	N/A	N/A

3.17 Other topics – Electromagnetic fields

(Scoping Report Section 16.8)

ID	Ref	Applicant's proposed matters to scope out	Inspectorate's comments
3.17.1	Paragraphs 16.8.1 – 16.8.14	Electromagnetic Fields (EMF)	The Scoping Report proposes to scope out a standalone EMF chapter from the ES on the basis that an EMF assessment will be presented as a technical appendix to the ES, and the result and recommendation within this will be incorporated into the design of the proposed development. The Inspectorate is in agreement with this approach.

ID	Ref	Description	Inspectorate's comments
3.17.2	Paragraphs 16.8.2 – 16.8.4	High voltage cables – 132kV	The ES should clearly identify any proposed cables which are over 132kV, and the EMF assessment should include the location, routing and voltages of any cables over 132kV, and provide a risk assessment to any relevant human and ecological receptors within the Zol.

APPENDIX 1: CONSULTATION BODIES FORMALLY CONSULTED

TABLE A1: PRESCRIBED CONSULTATION BODIES

Bodies prescribed in schedule 1 of The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (as amended) (the 'APFP Regulations (as amended)')

SCHEDULE 1 DESCRIPTION	ORGANISATION
The Secretary of State for Defence	Ministry of Defence
The relevant parish council	Leadenham Parish Council
	Blankney Parish Council
	Brant Broughton and Stragglethorpe Parish Council
	Welbourn Parish Council
	Navenby with Skinnand Parish Council
	Wellingore Parish Council
	Temple Bruer with Temple High Grange Parish Council
	Cranwell, Brauncewell and Byard's Leap Parish Council
	Scopwick and Kirkby Green Parish Council
	Norton Disney Parish Council
	Bassingham Parish Council
	Beckingham Parish Council
	Carlton-le-Moorland Parish Council
	Ashby De La Launde and Bloxholm Parish Council
Fulbeck Parish Council	
The Environment Agency	The Environment Agency - Lincolnshire and Northamptonshire Region

SCHEDULE 1 DESCRIPTION	ORGANISATION
Natural England	Natural England
The Forestry Commission	Forestry Commission
The Historic Buildings and Monuments Commission for England (known as Historic England)	Historic England
The relevant internal drainage board	Upper Witham Internal Drainage Board
	Witham First District Internal Drainage Board
	Trent Valley Internal Drainage Board
The relevant Highways Authority	Lincolnshire County Council Highways
	National Highways
The Civil Aviation Authority	Civil Aviation Authority
The Health and Safety Executive	Health and Safety Executive
United Kingdom Health Security Agency, an executive agency of the Department of Health and Social Care	United Kingdom Health Security Agency
NHS England	NHS England
The relevant police authority	Lincolnshire Police and Crime Commissioner
	Nottinghamshire Police and Crime Commissioner
The relevant ambulance service	East Midlands Ambulance Service NHS Trust
The relevant fire and rescue authority	Lincolnshire Fire and Rescue Service
	Nottinghamshire Fire and Rescue Service

TABLE A2: RELEVANT STATUTORY UNDERTAKERS

‘Statutory undertaker’ is defined in The APFP Regulations (as amended) as having the same meaning as in section 127 of the Planning Act 2008 (PA2008)

STATUTORY UNDERTAKER	ORGANISATION
The relevant Integrated Care Board	NHS Lincolnshire Integrated Care Board
	NHS Nottingham and Nottinghamshire Integrated Care Board
NHS England	NHS England
The relevant NHS Trust	East Midlands Ambulance Service NHS Trust
Railways	Network Rail Infrastructure Ltd
	National Highways Historical Railways Estate
Civil Aviation Authority	Civil Aviation Authority
Licence Holder (Chapter 1 Of Part 1 Of Transport Act 2000)	NATS En-Route Safeguarding
Universal Service Provider	Royal Mail Group
Homes and Communities Agency	Homes England
The relevant Environment Agency	The Environment Agency
The relevant water and sewage undertaker	Anglian Water
	Severn Trent
The relevant public gas transporter	Cadent Gas Limited
	Northern Gas Networks Limited
	Scotland Gas Networks Plc
	Southern Gas Networks Plc
	CNG Services Ltd
	Energy Assets Pipelines Limited
	ES Pipelines Ltd

STATUTORY UNDERTAKER	ORGANISATION
	ESP Connections Ltd
	ESP Networks Ltd
	ESP Pipelines Ltd
	Fulcrum Pipelines Limited
	GTC Pipelines Limited
	Harlaxton Gas Networks Limited
	Independent Pipelines Limited
	Indigo Pipelines Limited
	Inovyn Enterprises Ltd
	Last Mile Gas Ltd
	Leep Gas Networks Limited
	Mua Gas Limited
	Quadrant Pipelines Limited
	Stark Works
	National Gas
The relevant electricity distributor with CPO Powers	National Grid Electricity Distribution (East Midlands) Limited
	National Grid Electricity Distribution (West Midlands) Limited
	Advanced Electricity Networks Ltd
	Aidien Ltd
	Aurora Utilities Ltd
	Eclipse Power Network Limited
	Energy Assets Networks Limited
	ESP Electricity Limited

STATUTORY UNDERTAKER	ORGANISATION
	Fulcrum Electricity Assets Limited
	Green Generation Energy Networks Cymru Ltd
	Harlaxton Energy Networks Limited
	Independent Distribution Connection Specialists Ltd
	Independent Power Networks Limited
	Indigo Power Limited
	Last Mile Electricity Ltd
	Leep Electricity Networks Limited
	Mua Electricity Limited
	Optimal Power Networks Limited
	Stark Infra-Electricity Ltd
	The Electricity Network Company Limited
	UK Power Distribution Limited
	Utility Assets Limited
	Vattenfall Networks Limited
The relevant electricity transmitter with CPO Powers	National Grid Electricity Transmission Plc
	National Grid Electricity System Operation Limited

TABLE A3: LOCAL AUTHORITIES AS DEFINED IN SECTION 43(3) OF THE PA2008

LOCAL AUTHORITY
Lincoln City Council
Newark and Sherwood District Council
West Lindsey District Council
South Holland District Council

LOCAL AUTHORITY
Boston Borough Council
North Kesteven District Council
East Lindsey District Council
South Kesteven District Council
Peterborough City Council
North East Lincolnshire Council
North Lincolnshire Council
Rutland County Council
Cambridgeshire County Council
Norfolk County Council
Nottinghamshire County Council
Leicestershire County Council
North Northamptonshire Council

TABLE A4: NON-PRESCRIBED CONSULTATION BODIES

ORGANISATION
East Midlands Combined Authority

APPENDIX 2: RESPONDENTS TO CONSULTATION AND COPIES OF REPLIES

CONSULTATION BODIES WHO REPLIED BY THE STATUTORY DEADLINE:

Anglian Water
Brant Broughton and Stragglethorpe Parish Council
Cadent Gas Limited
Cambridgeshire County Council
Carlton-Le-Moorland Parish Council
Environment Agency
Forestry Commission
Fulbeck Parish Council
Fulcrum Pipelines Limited
Health and Safety Executive
Historic England
Lincolnshire County Council
Ministry of Defence
National Gas
National Grid Electricity Transmission Plc
National Highways
NATS En-Route Safeguarding
Natural England
Newark and Sherwood District Council
Norfolk County Council
North Kesteven District Council
North Lincolnshire Council

North Northamptonshire Council

Northern Gas Networks Limited

Nottinghamshire County Council

Peterborough City Council

Severn Trent Water

South Holland District Council

South Kesteven District Council

West Lindsey District Council



Anglian Water Services
Lancaster House, Lancaster Way,
Ermine Business Park, Huntingdon,
Cambridgeshire. PE29 6XU

By Email: Planning Inspectorate
LeodaSolarFarm@planninginspectorate.gov.uk

www.anglianwater.co.uk

Our ref: Leoda Solar/ ScopingResponse

28th February 2025

Dear Mr. Chapman,

Application by Leoda Solar Farm Limited (the Applicant) for an Order granting Development Consent for Leoda Solar Farm (the Proposed Development)

Thank you for seeking our advice on the Environmental Impact Assessment (EIA) Scoping Report for the High Grove Solar project which is located within the North Kesteven District within Lincolnshire.

Anglian Water Services (AWS) is the appointed water and sewerage undertaker for all of the project area shown in Figure 1-2. The following response is submitted on behalf of AWS in its statutory capacity regarding water resources, water supply network, water recycling centres (WRC), water recycling assets and the sewer network, as well as the related role of surface drainage.

The Leoda project is located within the Water Resource Zones (WRZ) of Central Lincolnshire and designated as being within a 'seriously water stressed' region. In view of the potential impacts on water resources, the Applicant is advised to consider the published Water Resources East [Regional Plan](#) which sets out the collective water companies position. The AWS draft Water Resource Management Plan (WRMP) is available on our website [Water resources management plan \(anglianwater.co.uk\)](#).

As stated in Section 9.5.54 parts of the application area lie close to Source Protection Zones (SPZ). There is a need to ensure that any development proposals do not have an adverse effect on any existing boreholes which are used to supply the public with drinking water.

The project's EIA will need to consider water resources and water efficiency through the preparation of a Water Resources Assessment (WRA). AWS recommends that the WRA is an integral part of Chapter 9 Water Environment. The WRMP should therefore be added to the data sources listed.

AWS works to support the construction and operation of national infrastructure projects that are conducted in accordance with the Water Industry Act 1991. We would expect the EIA to

include reference to any existing infrastructure managed by AWS and the provision of replacement infrastructure and the requirements for new infrastructure.

AWS works with developers, including those constructing projects under the 2008 Planning Act, to ensure requests for alteration of sewers, wastewater and water supply infrastructure are planned to be undertaken with the minimum of disruption to the project and customers. We would encourage on-going engagement to ensure that AWS and the Applicant have reached agreement on the approach to assets and connections in order that these matters are not drawn out during the Examination stage.

The Scheme - existing and proposed infrastructure

Reference is made within the Scoping Report to the potential construction of the impacts on existing utility infrastructure and services (Section 16.7.1). Given the potential location and extent of the proposed development area, there will be existing AWS assets both above and below ground, which serve the surrounding businesses and community. For instance, there are existing AWS assets including several water mains within the project area such as within the highway or its verges which link to the various settlements. Water abstraction locations may also be within the project area.

In addition, AWS has sewerage assets (drainage networks and above ground facilities including pumping stations and water recycling centres/ sewage treatment works), connected to these are pipe connections to the corresponding settlements, including sewers and rising mains which can be in areas beyond the highway verges.

In terms of AWS' planned asset projects, there is a major pipeline project underway to provide a new potable water transfer forming a network that stretches from North Lincolnshire to Essex. Part of the route of this pipeline is a 34-kilometre water pipeline (including working corridor) between Waddington, south of Lincoln, and Harrowby, east of Grantham. It also involves building pumping stations at Waddington and Welby, as well as a storage reservoir in Welby. The area of the proposed pipeline is within the red line boundary for the Leoda project in the vicinity of Navenby/ Wellingore and will need to be taken account of for proposed grid connection corridor area. See [Lincoln to Grantham pipeline](#) which provides further details including the route map and our working area.

Utilities searches should, therefore, be undertaken to establish the extent of AWS's current and new assets within the scheme's application boundary. These should be mapped to establish interactions with assets and the scheme designed to avoid impacts upon those assets. AWS would want to ensure the location and nature of our assets serving local communities and strategic water supply infrastructure are identified and protected. To reduce the need for diversions and the associated carbon impacts of those works, ground investigations would enable the Applicant to design out these potential impacts and so also reduce the potential impact on services if construction works cause a pipe burst or damage to supporting infrastructure.

Maps of AWS's underground assets are available to view at the following link:
<http://www.digdat.co.uk/>

For land investigation questionnaires relating to AWS's above ground assets and formal easements, you should contact AWS's estates team on: awsestates@savills.com

Buffers will be required and will inform the construction and operation of the proposed scheme, and its layout and design, following necessary ground investigations. Suitable easements, separation distances and safe working practices will need to be agreed.

The Scoping Report refers to the use of both trenches and trenchless work (section 2.3) methods for installation of cables. AWS requires the following standoff distances are applied for working each side of the medial line of AWS pipes. This information is taken from our Protective Provisions template which will need to be agreed with AWS for the DCO submission.

- (a) 4 metres where the diameter of the pipe is less than 250 millimetres;
- (b) 5 metres where the diameter of the pipe is between 250 and 400 millimetres; and
- (c) A distance to be agreed on a case-by-case basis and before the submission of the plan under sub-paragraph (1) is submitted where the diameter of the pipe exceeds 400 millimetres.

Management Plans

The management plans listed under Section 2.4 Construction Programme and Activities of the Scoping Report, should include steps to remove the risk of damage to AWS's assets from plant and machinery (compaction and vibration during the construction phase) including haul and access roads. We note vibration from construction traffic has been scoped out (Table 11-6), but this should take account of potential effects on our assets. Further advice on minimising and then relocating (where feasible) AWS existing assets can be obtained from: connections@anglianwater.co.uk

Scheme assessment, design, mitigation and connections

Water recycling/ sewerage services

AWS notes under Section 9.8.10 that "*At the time of writing, it is not assumed that wastewater generated from the Scheme will be managed by either connection to an available public sewer, if close enough, or a self-contained independent non-mains domestic storage. This would be a self-contained foul drainage system to a sealed cesspit or similar sealed system. These tanks would be regularly emptied under contract with a registered recycling and waste management contractor.* The impact on foul drainage or water supply has been scoped out of further assessment.

The situation should be confirmed for all stages (construction, operation and de-commissioning) within the Environmental Statement.

Drainage and Surface Water

AWS welcomes the statement that the Flood Risk Assessment (FRA) will assess all applicable sources of flooding to and identify any mitigation measures required to ensure flood resilience, taking climate change into account, and to prevent any off-site impacts (section 9.7.11 – 9.7.14). We consider that this should help to avoid increased risk of ground water infiltration/surface water ingress to our wastewater networks that may lie in the vicinity of the proposed onshore scheme.

The FRA as part of the EIA, should consider any increased risk of surface water and groundwater flood risks arising from the scheme that could exacerbate sewer flooding risks due to infiltration/ingress to our networks, particularly in terms climate change impacts. The likelihood of more extreme weather events leading to higher-than-average rainfall and cumulative impacts of storm events, as recently experienced during Winter 2023/24, mean that infrastructure becomes increasingly vulnerable to flood risk. The project should aim to minimise any flood risks as far as possible by designing in measures to limit increased flood risks to utilities infrastructure.

Any potential embedded design measures such as Sustainable Drainage Systems (SuDS) to be utilised at permanent above ground installations to manage rainfall run-off and achieve sufficient attenuation to avoid increases in flood risk, and compensation flood storage at temporary site compounds to manage flood risk at these locations. AWS is responsible for management of the risks of flooding from surface water which are directed to foul water or combined water sewer systems.

Our preference would be for surface water run-off from above ground permanent buildings and impermeable surfacing to be managed by SuDS with any outfall to a watercourse, in accordance with the drainage hierarchy. The risk of sewer flooding and any required mitigation within the public sewerage network should form part of an FRA and drainage strategy. AWS would wish to be engaged on the preparation of a drainage strategy and consider that this should be required to demonstrate the appropriate management of run-off from the proposed onshore scheme.

Subject to confirmation that all surface water will be managed following the drainage hierarchy including Sustainable Drainage Systems (SuDS), AWS would want to clarify that the DCO as proposed will have no connection to the public sewer network for construction or for operations. This would then negate the need for the draft DCO Order to provide for any connection and so require consequent Protective Provisions and Requirements to ensure any connections did not compromise the wastewater services of existing customers. AWS will be a consultee set out in Requirements for the approval of drainage strategies and surface water management plans.

Further advice wastewater capacity and options can be obtained by contacting the Pre-Development Team at: planningliaison@anglianwater.co.uk

Water resources

As water may be used in the project construction and operation, this indicates that water resources should be assessed in the EIA. AWS does not consider that sufficient information has been provided to reach a conclusion on the project's potential impacts regarding water supply. Impacts of climate change in terms of water availability for the construction, operation and

decommissioning stages are also of relevance. In view of the guidance in the National Policy Statements we would have anticipated that the scoping would have included and then considered the approach to water supply and water resources.

AWS requests that these points are assessed early in the EIA to set out how the project will be supplied with water, the wastewater managed, how water assets serving residents and business will be protected and how design has been altered to reduce the need for new water infrastructure or the diversion of existing assets. AWS also requires that the project seeks to minimise its demand for water and records this in the WRA.

AWS has a statutory duty to supply water for domestic purposes. This means we are legally obliged to supply water to all household properties as well as any domestic requirements (e.g., drinking water, hand-basins, toilets and showers) of non-household properties. In many cases, domestic demand will be the only requirement for non-household properties (e.g., schools, hospitals, offices, shops and hairdressers). Non-domestic demand refers to water use for industrial processes, (e.g., agri-food production or car washes), and there is no legal requirement for us to supply for this type of water usage where it might put at risk our ability to supply water for domestic purposes.

Although AWS does not have a statutory obligation to supply for non-domestic purposes in these circumstances, we factor this into our WRMP and we do everything we can to support businesses in the region, with the help of the water retail market.

AWS is currently in the unfortunate position that it needs to limit requests for additional water for process use to up to 20m³/day per site. AWS advises through its Non-Domestic Water Requests Policy that new non-household water supply requests (construction and operational phases) may be declined as these could compromise our regulatory priority of supplying existing and planned domestic growth. The flows needed to fill water storage tanks for example (if the Applicant decides not to use rainwater harvesting on site to meet this non potable demand) will need to be assessed by AWS to advise whether a supply is feasible when assessed in terms of the potential to jeopardise domestic supply or at a significant financial or environmental cost.

To assess these requests, we require a WRA to be submitted as part of our planning process setting out a daily demand for each stage of the project and whether this is for domestic or non-domestic uses. A copy of our WRA template is attached with this letter.

AWS recommends that new water supply connections are not sought during construction and that potable water supply for welfare facilities, for example, are served by tanker to reduce the embedded (capital) carbon from providing new connections. The Applicant should confirm that there will be no temporary concrete batching facilities with consequent water demands and would be offsite and so not require an on-site supply. Water requirements for firefighting measures and construction traffic (dust suppression/ wheel washing areas) should also be explained.

Further advice on water capacity and options can be obtained by submitting a pre-development enquiry to the Pre-Development Team at: planningliaison@anglianwater.co.uk and on the InFlow webpages: [InFlow | Development Services \(anglianwater.co.uk\)](#)

Engagement and next steps

We consider AWS should be included on the list of consultees to be drawn up by the Applicant, as set out in Section 4 of the Scoping Report. AWS notes that a statutory consultation on the project is concurrently taking place with a closing date of 6th March 2025 which we will be responding on.

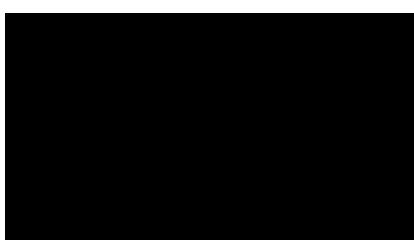
AWS would welcome engagement with the Applicant throughout the remaining stages of the project to address and resolve issues prior to the submission of the DCO including Protective Provisions. The preparation of a Statement of Common Ground should document key issues and the status of whether issues have been resolved or remain under discussion, which helps to reduce the Examining Authority questions for statutory undertakers and removes the possible need for changes to the project during Examination.

We would recommend discussion on the following issues:

1. Impact of development on AWS's water and water recycling assets.
2. The design of the project to minimise interaction with AWS assets/ critical infrastructure and specifically to avoid the need for mitigation works and diversions which have associated carbon costs.
3. Requirement for potable and raw water supplies (if any) and the inclusion of the WRA in the draft EIA.
4. Requirement for water recycling connections (if any).
5. Confirmation of the project's cumulative impacts (if any) with AWS projects.
6. The Draft Development Consent Order (DCO), including draft Protective Provisions and requirements specifically to ensure AWS's services are maintained during construction.

Advice on the form and content of suitable Protective Provisions in the draft Development Consent Order should be sought. Please do not hesitate to contact [REDACTED] [REDACTED] @anglianwater.co.uk on these aspects or should you require clarification on the above response or during the pre- application to decision stages of the project.

Yours sincerely,



Phil Jones
Growth Strategy Manager – Sustainable Growth

Water Resource Assessment

The need for a Water Resource Assessment

Anglian Water is committed to supporting sustainable economic growth across the East of England. However, due to the impacts of climate change and to help protect the environment, the amount of water that businesses, including Anglian Water, can abstract is reducing. This situation is reducing our ability to be flexible with new requests to supply non-domestic connections which were not planned for in the Water Resources Management Plan 2025-2050 (WRMP24).

Whilst Anglian Water are taking steps to respond to this challenge with the construction of two new reservoirs and strategic pipeline transfers, these will take time to deliver. As such it is more crucial than ever that we work together with businesses, to ensure we are aware of their water demands for growth, and that demand management and water efficiency solutions are implemented to maximise what water is available.

Whilst Anglian Water has a statutory duty to supply water for domestic purposes (e.g., drinking water, hand-basins, toilets and showers) for non-household properties (e.g., schools, hospitals, offices, shops and hairdressers), there is no legal duty to provide water for non-domestic usage (e.g., agri-food production or car washes) where it might put at risk our ability to supply water for domestic purposes. When a site is designated as an NSIP or SDO, we will do our utmost to provide the water required for your project. However, this is subject to a director level review within Anglian Water and can take some time to approve. In some instances, even NSIPS and SDOs may ultimately be refused their requested non-domestic water request.

Anglian Water has adopted a '[Non-Domestic Water Requests Policy](#)' which states that requests over 20m³/day will be declined. However, for Nationally Significant Infrastructure Projects that are requesting over 20m³/day of non-domestic water (as defined above) for a scheme, a Water Resource Assessment must be completed. This is so we can better understand water demands, water efficiency measures and more effectively forecast water supply requirements. This will help enable us to support projects that help achieve national ambitions such as achieving net zero carbon and unlocking sustainable growth.

Water Resource Assessment (WRA)

We advise that the WRA is used to inform the Preliminary Environmental Impact Report at the Statutory Consultation stage of the Development Consent Order (DCO) process and the Environmental Statement at submission. This will include engagement with environmental regulators. The WRA will also need to be submitted to Anglian Water's pre-planning team also, so that the request for non-domestic water can be considered further. To guide this, we have set out below the information we expect to be included.

1. Contact and project details

Applicant name	
Applicant address	
Applicant contact name	

Applicant contact email	
Applicant contact phone number	

Agent name (if applicable)	
Agent address	
Agent contact name	
Agent contact email	
Agent contact phone number	

Retailer name (if applicable)	
Retailer address	
Retailer contact name	
Retailer contact email	
Retailer contact phone number	
Water SPID	
Sewerage SPID	
Trade Effluent DPID	

Site address/location details	
Site contact name	
Site contact role	
Site contact email	
Site contact phone number	

Site type / usage	
Hours of production	
Days of production	
Peak production period	
When will your connection be required	
Number of full-time employees on site	
Number of jobs supported by new/additional supply and discharge request	
Financial investment linked to request	
Project planning route and status - please provide details and timeframe	

2. Existing site supply and discharge (if applicable)

Non-domestic water demand	
Mains (potable) water consumption	
Annual water consumption (m ³ /year)	
Average daily water demand (m ³ /day)	
Peak daily water demand (m ³ /day)	
Peak hourly water demand (m ³ /hour)	
Borehole water consumption	
Annual water consumption (m ³ /year)	
Average daily water demand (m ³ /day)	
Peak daily water demand (m ³ /day)	
Borehole licence reference (please attach)	
Other water consumption (specify source)	
Annual water consumption (m ³ /year)	
Average daily water demand (m ³ /day)	
Peak daily water demand (m ³ /day)	
Anglian Water/site water connection location (Grid ref)	
Meter Serial Number and size	
Site water supply internal and external pipe diameters	
Site water supply pipe length to first point of use	
On-site water storage volume	
Effective water storage volume (m ³)	
Height above ground level of inlet to storage	
Storage inlet control device (ball-valve, motorised valve, etc)	
Percentage of process supplied by on-site water storage	

Trade effluent	
Total trade effluent volume (m ³ /year)	
Average daily trade effluent discharge (m ³ /day)	
Peak daily trade effluent discharge (m ³ /day)	
Trade effluent consent reference (if applicable)	
Trade effluent connection location (Grid ref)	
Trade effluent treatment plant description	
Trade effluent composition	

3. New (or additional needs) site supply and discharge requirements

This should include any temporary non-domestic water uses for construction.

Water demand

Quantity of water requested for domestic purposes (m ³ /day)	
Quantity of water requested for non-domestic (process) purposes (m ³ /day)	
Any water required for the purposes of firefighting	
Quality of water required i.e. potable or non-potable	
Average daily demand (m ³ /day)	
Peak daily demand (i.e. the highest volume we might have to supply in a day in m ³ /day)	
Diurnal and annual profile (m ³)	
Timescales to require the water, including any 'ramping up' to the full volumes e.g. construction needs and timescales	
Trade effluent	
Total trade effluent volume (including existing if appropriate) (m ³ /year)	
Average trade effluent volume (including existing if appropriate) (m ³ /day)	
Peak trade effluent volume (including existing if appropriate) (m ³ /day)	
Project planning route and status – please provide details and timeframe	

4. Water efficiency measures

As set out above, and in Anglian Water's Non-Domestic Water Requests Policy, there is a need to make best use of what water is available across the region, through implementation of water efficiency measures. We expect evidence of high levels of water efficiencies that you are considering implementing as part of your development and processes.

Potential ideas and solutions that we would want evidence on include:

- Maximisation of existing onsite resources (e.g. own borehole)
- Consideration of non-water based or close-loop cooling systems
- Capture and reuse of water from water-based cooling systems e.g. blowdown
- Sharing of resources with neighbouring facilities, considering all water-based resources such as steam, water/effluent reuse, rainwater harvesting
- Specification of highly rated white goods
- Sub-metering on site
- Evidence of water audit systems
- Infrastructure or systems that could manage the timing of water take e.g. onsite storage and control system, production flexibility
- Onsite measures to improve the water environment e.g. wetland

Please set out below what steps you have undertaken or will implement to ensure your processes (including during construction phases), and development are as water efficient as possible:

Response of Brant Broughton and Stragglethorpe Parish Council as a consultation body to the Planning Inspectorate in relation to the proposed Leoda Solar Farm

We have concerns about the sheer scale of this solar farm in this particular location. The proposed 2,400 acre development occupies virtually all the land between 3 conservation villages, Leadenham, Welbourn and Brant Broughton; turning the whole area between the villages from a rural, agricultural landscape into an industrial one. This will be a hugely significant change in the environment in which we have chosen to live. There are no gains for local people in this plan.

The site slopes down the Lincoln Edge from Welbourn and Leadenham towards Brant Broughton. Views from Leadenham and Welbourn towards Brant Broughton and the Trent Valley are considered some of the finest in the County. Local planning decisions have always taken into account visual impact but are being by-passed due to the size of this development. At a meeting with Leoda in Leadenham Village Hall on 4th February 2025 the Leoda representative called Alex agreed that the visual impact of this site would be significant for local residents.

The mitigations suggested by Leoda in their maps, plans, literature and discussion with Leoda representatives appear to be tokenism when looking at the scale of the site. The area of land potentially considered for biodiversity mitigation is very limited and seems to be on land that they could not place equipment on anyway because it is classed as Flood Zone. Leoda representatives talked about a few visual corridors when visual impact was raised.

The village of Brant Broughton has suffered flooding over the last few years from the River Brant and the Sandbeck. Significant damage from flooding was incurred to residential properties, farmland, farm buildings and businesses in 2023. The proposed site drains towards Brant Broughton with land drains flowing into the River Brant. Any increase in surface run-off, throughflow or groundwater flow as a result of the building and operation of this site must be investigated, considered and taken into account in any decision; increased risk to our villagers is unacceptable.

Residents have raised concerns about the potential fire risk from the battery storage units. Can Leoda Solar Farm Ltd assure the Planning Inspectorate that there is sufficient water supply in the vicinity of the proposed site for any such scenario and that they have done robust risk assessments on the ability of the local fire and rescue services to deal with such an incident.

Whilst this appears to be just one site to consider this is one of 3 so far in this part of North Kesteven. Fosse Green Solar Farm (2,400 acres) and Springwell Solar Farm (4,200 acres) are ahead of Leoda in their launches. The assertion that this is classed as low-grade agricultural land seems hollow when considering the amount of land proposed that has been farmed successfully for generations. The industrialisation of 9,000 acres of land along with associated infrastructure is considerable and cannot fail to have an environmental, wildlife, amenity and visual impact on our local area.

We assume and ask that if a planning application does go forward for Leoda that a full Environmental Impact Assessment will be undertaken by independent bodies, including a consideration of the cumulative impact on our rural village of adding Leoda to other solar farms already in planning.



From: [REDACTED]
To: [Leoda Solar Farm](#)
Cc: [.box.Landservicesworkrequest.GD16](#)
Subject: RE: [EXT] Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 06 February 2025 09:18:53
Attachments: [image001.png](#)
[image003.png](#)

You don't often get email from [REDACTED]@cadentgas.com. [Learn why this is important](#)

Hello.

Thank you for the attached notification.

On review it appears cadent Gas has no interactions with the project. At this point cadent has nothing to comment. However, if the order limits were to change, Cadent wish to reserve the right to comment in the future.

Kind regards

From: Leoda Solar Farm
Sent: 03 February 2025 14:57
To: [REDACTED] ; .box.Landservicesworkrequest.GD16
Cc: Leoda Solar Farm
Subject: [EXT] Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

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FAO [REDACTED] - Planning and Consents Specialist

Dear Sir/Madam

Please see attached correspondence on the proposed **Leoda Solar Farm**.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its future application.

The Planning Inspectorate has identified you as a consultation body to inform the Scoping Opinion and is therefore inviting you to submit comments by **03 March 2025**. The deadline is a statutory requirement that cannot be extended.

Further information is included within the attached letter.

Please note that this is a separate consultation to the non-statutory consultation currently being undertaken by the Applicant.

Thank you.



Gary Chapman

EIA and Land Rights Advisor (HEO)

The Planning Inspectorate

T: [REDACTED]

www.gov.uk/pins

Ensuring fairness, openness and impartiality across all our services
This communication does not constitute legal advice.

From: [NSIPs](#)
To: [Leoda Solar Farm](#)
Cc: [NSIPs](#)
Subject: FW: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 03 February 2025 16:08:17
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[Leoda Solar Farm - Letter to stat cons Scoping & Reg 11 Notification.pdf](#)

You don't often get email from nsips@cambridgeshire.gov.uk. [Learn why this is important](#)

Good afternoon

As this falls outside of Cambridgeshire County Council's administrative boundary, we will not be looking to respond on this occasion. However, please could you keep us informed of the progress of the scheme through the NSIP process.

Please send updates to nsips@cambridgeshire.gov.uk.

Kind regards

Consents Coordinator

Place and Sustainability
Cambridgeshire County Council
PO Box 761, ALC2660, Huntingdon, Cambs PE29 9QR
Pronouns: [REDACTED] [why have I put this here?](#)
Email: [REDACTED] @cambridgeshire.gov.uk
Phone: [REDACTED]



From: Planning DC

Sent: 03 February 2025 15:10

To: NSIPs

Cc: [REDACTED]

Subject: FW: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

FYI

From: Leoda Solar Farm <LeodaSolarFarm@planninginspectorate.gov.uk>

Sent: 03 February 2025 15:01

To: Leoda Solar Farm <LeodaSolarFarm@planninginspectorate.gov.uk>

Subject: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

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FAO - Head of Planning

Dear Sir/Madam

Please see attached correspondence on the proposed **Leoda Solar Farm**.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of

CARLTON LE MOORLAND PARISH COUNCIL

Parish Clerk: [REDACTED]

c/o Parish Office, Village Hall, Brigg Lane, Carlton Le Moorland

Telephone: [REDACTED] E-mail: carltonlemoorlandpc@gmail.com

Chairman: [REDACTED]

28th February 2025

Dear Sir/Madam

Scoping Opinion – Leoda Solar Farm.

This response is from Carlton le Moorland Parish Council.

The council has discussed proposals, and this response represents the majority view. The Council has reservations over the suitability of the site proposed and the detrimental effect on the environment. In particular:

- The proposed development is close to the village of Brant Broughton. The junction of the road from that village onto the A17 is already busy and has been identified as a dangerous junction where several serious accidents have occurred. Any increase in traffic from contractors or site access will make this position even worse and could result in more serious accidents.
- The size of the proposed site, particularly when combined with the impact of other similar proposals in the area, will result in a long-term loss of large amounts of valuable agricultural land with consequential adverse effects on food security and environmental bio-diversity.
- Technology in the 'renewables' sector is advancing so rapidly that there is a real risk that the current proposals will lock us into an obsolescent solution that will cost significantly more than other options.
- Safety concerns have not been fully addressed, there have been instances of large-scale uncontrollable fires from storage batteries and the large number of big storage batteries poses a potential risk. Although the individual risk from one battery unit is small, this is multiplied by the number of proposed storage containers and the potential impact from a fire is large.
- The increasing pace of climate change means that further studies are needed to quantify and address the impact of surface water drainage following large amounts of rainfall.
- 'End of life' decommissioning of the solar panels and storage units has not been fully quantified or addressed and the full cost of any decommissioning need to be suitably guaranteed.

Yours sincerely

[REDACTED]

[REDACTED]

- Parish Clerk

[REDACTED]
The Planning Inspectorate
The Square,
Temple Quay House,
Temple Quay
Bristol BS16PN

Our ref: XA/2025/100263/01-L01

Your ref: EN0110016

Date: 03 March 2025

LeodaSolarFarm@planninginspectorate.gov.uk

Dear [REDACTED],

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) - Regulations 10 and 11

Application by Leoda Solar Farm Limited (the Applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development).

Thank you for consulting the Environment Agency on the Environmental Impact Assessment (EIA) Scoping Opinion for the above Nationally Significant Infrastructure Project (NSIP).

We have reviewed the submitted documents insofar as they relate to our remit. A full list of documents reviewed is listed in Appendix 1.

We recommend that the following issues are scoped in where they are currently proposed to be scoped out.

- Water supply and discharge should be scoped in. Water will be required for construction, operation and decommissioning. If the source of this water is not established, then the works cannot go ahead. Additionally, insufficient controls for the discharge of wastewater could pose a risk to groundwater.
- Insufficient attention has been given to Ground Conditions within Section 16.5. As ground conditions are not explicitly scoped in there is a chance that they will be overlooked.

Further details on the above points, along with detailed comments on the Scoping Report and Water Framework Directive Scoping Assessment can be found in Appendices 2 and 3.

General comments for consideration and advice to the Applicant is provided in Appendix 4.

If you require any further details, please contact us on the details below.

Yours sincerely,

Paul Gethins
Planning Specialist – National Infrastructure Team

Email: NITeam@environment-agency.gov.uk

Appendix 1 – List of Documents Reviewed

Appendix 2 – Comments related to the scope of the EIA

Appendix 3 – Comments related to the scope of the WFD Assessment

Appendix 4 – General comments for consideration and advice to the Applicant

Appendix 1 – List of Documents Reviewed

Leoda Solar Farm EIA Scoping Report Main Report, dated January 2025, prepared by AECOM

Appendix B: Long List of Major Accidents and Disasters

Appendix D: Water Framework Directive Screening & Scoping Assessment, dated January 2025, prepared by AECOM

Appendix E: Environmental Mitigation and Commitments Register, dated January 2025, prepared by AECOM

Appendix 2 – Comments related to the scope of the EIA

Groundwater and Contaminated Land

Document name: Leoda Solar Farm EIA Scoping Report Main Report; Appendix D: Water Framework Directive Screening & Scoping Assessment; Appendix E: Environmental Mitigation and Commitments Register

Main Report Section	Issue	
9.5.5, 9.6.15, 9.8.10, 18.1.3, Table 18-1 Appendix D Section 3.7, Table 2 Appendix E Table 1 WE-08		<p>The source of water for construction, operation and decommissioning is not stated. There is no explanation of where water will come from for construction, welfare, panel washing and fire water. Details of the proposed destination of foul water is contradictory.</p> <p>9.6.15 states “<i>The potential or impact of foul drainage / water supply in the area from the offices / maintenance facilities has been scoped out of further assessment.</i>”</p> <p>This is repeated in Table 18-1. No further explanation or justification is given in this section. We have not seen plans for drainage and water supply in these locations, so we cannot comment if scoping out is justified.</p> <p>In 9.5.5, the Applicant states they are yet to obtain information on “<i>licenced and unlicenced (private) water abstractions, and water activity permits (i.e. consented discharges), hydrogeology (e.g. groundwater levels)</i>”. Without this information, they cannot scope out potential risks.</p> <p>9.8.10 states “<i>it is not assumed that wastewater generated from the Scheme will be managed by either connection to an available public sewer, if close enough, or a self-contained independent non-mains domestic storage. This would be a self-contained foul drainage system to a sealed cesspit or similar sealed system. These tanks would be regularly emptied under contract with a registered recycling and waste management contractor.</i>”</p> <p>Sentences two and three appear to contradict sentence one. It appears to suggest there will be no mains sewer connection or self-contained waste storage system, but detail is then given about a self-contained storage system. This is repeated in Appendix E Table 1 WE-08. Clarification is needed.</p>

		In Appendix D (WFD) 3.7 Table 2, Operation and Maintenance Hub, it states " <i>Foul water (from welfare facilities) will be captured within a sealed cess pit and/or temporary facilities (e.g., portable welfare units) and treated off-site, if existing sewer connections are not available or feasible.</i> " If we interpret this correctly, it appears to contradict 9.8.10 of the Main Report as noted above.
	Impact	<p>Water will be required for construction, operation and decommissioning. If the source of this water is not established, then the works cannot go ahead.</p> <p>Without establishing a suitable source of water, there could be an unreasonable burden on existing supplies or nearby abstraction licences.</p> <p>Insufficient controls for wastewater could pose a risk to groundwater.</p>
	Solution	<p>Water supply and discharge should be scoped in. Information on existing abstractions, permits and other water activity should be obtained prior to making further assessment. The Applicant should liaise with the local water supplier and Environment Agency to determine if there is sufficient available water resource to meet the needs of the development.</p>

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 16.5	Issue	<p>Insufficient attention has been given to Ground Conditions. This section does not provide enough detail. Relevant information is missing. The outcomes of scoping are not explicitly stated.</p> <p>We consider the assessment of ground conditions to be very limited and therefore inadequate. Justification for this section being included in Chapter 16, rather than as its own chapter, is given as 5.7.2 and 5.7.3. The Applicant refers to "previous experience" of no likely significant effects, however this statement is not supported. This site is unique and ground conditions on other projects are unlikely to be the same. The PINS guidance referenced in 5.7.3 does not include "Ground Conditions" in the list of aspects to not require a separate chapter.</p>

	<p>6.5.1 states “<i>ground conditions ... addressed proportionately within the ES in relation to the likelihood for significant effects based on the work undertaken to date.</i>” Based on what is presented in the scoping report, only minimal work has been undertaken to date; this decision is not justified based on the information presented.</p> <p>16.5.37 states “<i>Following these mitigation measures and recommendations, any residual effects on ground conditions are considered not significant.</i>” This is only the case once mitigation and recommendations have been complete. This does not preclude identifying unexpected contamination at any stage.</p> <p>In 16.5.1 it states “<i>ground conditions are not scoped out of the EIA</i>”. We agree with this, but it would be clearer to say: “<i>ground conditions are scoped in</i>”. Additionally, we consider this should explicitly state that groundwater is also scoped in.</p> <p>In Table 18-2, it doesn’t explicitly state if Ground Conditions are scoped in or out.</p>
Impact	<p>The Applicant has not presented sufficient information in this section. Based on what is presented in the report, they cannot rule out any risks to ground at this stage.</p> <p>As ground conditions are not explicitly scoped in or out, there is a chance that they will be overlooked.</p>
Solution	<p>Based on the information given, we expect Ground Conditions to be scoped into the EIA. This needs to be confirmed.</p> <p>Further assessment of Ground Conditions should include:</p> <ul style="list-style-type: none"> • Current and historical land uses, including potential sources of contamination • Active and historic landfill and waste sites within influencing distance - we note that this is discussed in 15.5.9 and 15.5.10 for sites within the Scheme site boundary, however we would typically expect to see this discussed in the context of ground conditions, in addition to waste, and for a buffer to at least 250m outside the site boundary

		<ul style="list-style-type: none"> • Comprehensive description of geology and aquifer designations (the descriptions in Chapter 16.5 are incomplete) <p><u>This is not an exhaustive list.</u></p> <p>We also expect as a minimum a Phase I Geo-environmental desk study. We may request this as a DCO Requirement if it is not completed beforehand. See also 16.5.31 to 16.5.37. We understand this is currently being prepared (16.5.33) and look forward to reviewing it in due course.</p>
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<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 16.5.5	Issue	We suggest that the Environment Act 2021 should be in this list (see Ref. 9-1).
	Impact	Failure to identify all relevant legislation could result in environmental offences.
	Solution	Check legislation referenced and ensure it is followed.

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 16.5.11	Issue	In 16.5.11 the Applicant refers to Environment Agency Catchment Data Explorer (Ref. 16-29). Ref. 16-29 is for Land Contamination Risk Management (LCRM).
	Impact	Failure to provide a link to the correct reference means that readers cannot check the information given.
	Solution	Correct reference needed. Check all references in the report to ensure they are correct.

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 16.5.19	Issue	<p>The Applicant has not satisfactorily identified ground conditions and constraints for the site. There is no mention of bedrock principal aquifer designation underlying most of proposed cable route.</p> <p>Source Protection Zones (SPZs) are not mentioned anywhere in Chapter 16. Shallow groundwater is possible (see 9.5.53) but this is not considered in this chapter.</p> <p>Active and historic landfill sites and waste sites are not mentioned or considered.</p>
	Impact	Failure to identify ground conditions means that the Applicant cannot adequately characterise the site and identify risks.

		<p>Principal aquifers and SPZs are highly sensitive, and additional controls may be required.</p> <p>Shallow groundwater may require dewatering during construction and demolition. This could require a permit or exemption to be agreed with the Environment Agency prior to commencement.</p>
	Solution	<p>Review the whole of Section 16.5 and provide additional detail in the EIA and ES. We suggest that Ground Conditions are of sufficient sensitivity in this area to warrant a full chapter.</p>

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
<i>Section 16.5.24 to 16.5.25</i>	Issue	The list of sensitive receptors is insufficient.
	Impact	Failure to identify sensitive receptors could lead to insufficient mitigation and unacceptable risks.
	Solution	<p>The following sensitive receptors relating to ground conditions should be included:</p> <ul style="list-style-type: none"> • Site is underlain by Secondary and Principal aquifers • Future site users and neighbouring site users should be included • Surface water features • Water abstractions within influencing distance of the site <p>This may not be an exhaustive list. The Applicant should review the available data and compile a full list.</p>

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
<i>Whole Report</i>	Issue	Heat is a groundwater pollutant, mentioned in the Environmental Permitting Regulations via amendments in 2023. The potential for heating of surface and groundwater due to the development, such as thermal transmission from cables, is not mentioned in the scoping report.
	Impact	Underground cables, such as the HV grid connection cables, generate heat that dissipates naturally to the surrounding ground during power transmission. The levels of heat loss and dissipation will be dependent on numerous factors including cable design, soil structure, transmission voltage and engineering design. Where underground cables interact with groundwater bodies this could result in local degradation of groundwater quality via the generation of a heat plume.

	Solution	We recommend that this impact be Scoped In for further assessment. This should be assessed further when the ground conditions and the thermal characteristics of the cables to be installed are better understood. An informative about thermal emissions from buried cables is provided at in Appendix 4 of this response.
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Fisheries

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 8.5.14	Issue	Insufficient fish baseline data within the report for the desk study. There are records of spined loach and bullhead in the River Witham and River Brant, as well as a notable population of coarse fish.

Impact	Without good baseline data, impacts on fish species could be missed.
Solution	Include freely available Environment Agency fish population data in the desk study: Freshwater fish surveys (NFPD) - data.gov.uk

Biodiversity

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 8.3.2	Issue	Environmental legislation does not list The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024.

Impact	Risk of not considering new environmental definitions in legislation in respect of 'irreplaceable habitat', along with related obligations regarding such habitats.
Solution	Include and consider the following legislation, policy and guidance: Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024, for completeness.

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Table 8-3	Issue	Proposals for aquatic habitat and species surveys are generic.

Impact	Feedback and/or agreement regarding the proposed approach cannot be provided/ given as part of our response at this time.
Solution	Further consultation should be undertaken when further ecology baseline information and associated proposals for

		additional assessment and/ or scoping assessments are available.
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Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.6.3	Issue	Report incorrectly states that " <i>The greatest risk of adverse impacts during construction and decommissioning phases are on the River Brant, as the Solar PV Site is located within this catchment. This is located approximately 16 km northwards and is considered to be sufficiently far downstream to avoid impacts, due to dilution and distance of potential propagation of impacts and effects.</i> "
	Impact	The site is adjacent to the Lower Brant water body and tributary watercourses are present on site.
	Solution	Ensure impacts to this watercourse are appropriately considered in the EIA and WFD assessments.

Surface Water Quality

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.6.3	Issue	Report incorrectly states that " <i>The greatest risk of adverse impacts during construction and decommissioning phases are on the River Brant, as the Solar PV Site is located within this catchment. This is located approximately 16 km northwards and is considered to be sufficiently far downstream to avoid impacts, due to dilution and distance of potential propagation of impacts and effects.</i> "
	Impact	The site is adjacent to the Lower Brant water body and tributary watercourses are present on site.
	Solution	Ensure impacts to this watercourse are appropriately considered in the EIA and WFD assessments.

Water Resources

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.6.4, 9.8.4	Issue	The assessment should include both licensed abstractions and unlicensed (private) water supplies.
	Impact	Inaccurate/inappropriate assessment of potential impacts to other users.
	Solution	Assessment of the impacts on private water supplies and the potential for derogation to occur. Abstraction licences will not be issued if they pose an impact to other abstractors.

	<p>Additional Comments</p> <p>Licensed abstractions data can be provided by the Environment Agency.</p> <p>Certain private and small water supplies do not require a licence to abstract water; therefore, we are not necessarily aware of their existence. The locations of private domestic sources may be held by the local authority on the register required by Regulation 14 Private Water Supplies Regulations 2016.</p>
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Appendix 3 – Comments related to the scope of the WFD Assessment

Groundwater and Contaminated Land

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 1.6	Issue	States Water Environment chapter of scoping report is Chapter 6. This is incorrect, it's 9. Similarly, a reference in 1.16 is showing as “Error! Reference source not found.”
	Impact	Reference to the incorrect chapter is confusing and could lead to information being missed.
	Solution	Review all references and update as necessary.

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 3.7, Table 2	Issue	In Table 2, groundwater bodies are not explicitly scoped in or out for some activities (including supporting infrastructure, BESS, substation, operations and maintenance hub, fencing and security, access tracks, surface water drainage, landscaping and biodiversity enhancement). The purpose of the screening and scoping report has therefore not been met. Some of these activities are listed in 7.5 (summary of activities screened out), but some are listed in 7.6 (summary of activities screened in). This is a cause for confusion.
	Impact	If WFD bodies are not explicitly scoped in or out, stakeholders and consultees cannot know if they will be considered further or not.
	Solution	Wherever a scoping decision has not been explicitly given, we expect that the WFD body is screened in.

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 3.7, Table 2	Issue	Under Solar photovoltaic activities, it states “ <i>Solar PV modules do not contain any liquid that could contaminate rainwater and minimising pollution risk arising from runoff</i> ”.

		Some solar PV panels are treated with perfluoroalkyl and polyfluoroalkyl substances (PFAS). This is a persistent pollutant which can contaminate groundwater and surface water. The use or not of PFAS or similar chemicals is not mentioned anywhere in the screening report.
	Impact	Failure to consider if PFAS will be used could mean the risks are not considered.
	Solution	Confirm if PFAS will be used in any part of the development. Provide explanation or justification of how the risk of these entering the natural environment will be managed.

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
Section 6.6	Issue	Management of spillage risk includes “ <i>Cement mixing and washing areas should be situated ... at least 20 m away from the water body</i> ”. Shallow groundwater is expected (see 9.5.53). As such, the Applicant will struggle to complete these activities at least 20 m away from groundwater bodies.
	Impact	The Applicant is committing to unrealistic mitigation or overlooking a sensitive receptor. Risks to groundwater must be considered.
	Solution	We would like additional clarity on how these activities will be completed >20 m away from groundwater bodies. Mitigation against risk to groundwater needs to be realistic and with sufficient detail.

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
Section 6.8	Issue	It states “ <i>The Contractor(s) should continuously monitor the water quality within the Scheme site and downstream of the site, throughout construction.</i> ” Continuous monitoring is a significant commitment. We are not opposed to the proposal, but we would like further information on how this will be achieved. Clarity is needed on whether this will include groundwater quality.
	Impact	Commitment to continuous might be impractical and the Applicant could fall short of this unless suitable measures are put in place at an early stage.

	Solution	Clarity is needed on how this will be achieved. Further information should be provided on which water bodies, and what water characteristics, are being monitored.
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<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
Section 6.15	Issue	Use of SuDS is proposed with reference to the Surface Water Drainage Strategy. No mention is made of groundwater in this section. SuDS must also be designed to cause no additional risk to groundwater.
	Impact	If groundwater is not considered in SuDS design, there could be pathways for contamination to migrate into groundwater bodies.
	Solution	Consider groundwater in SuDS design and provide explanation of how the potential for contamination will be avoided.

BESS Locations

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
	Issue	The effects on the River Brant WFD waterbodies have been screened out from the inverters/sub-stations/transformers and BESS sections due to the proposal to locate these structures 10m away from surface watercourses. However, designs have yet to be finalised, and an FRA has not yet been produced.
	Impact	Without knowledge of possible interactions with surface runoff and flow pathways within the site, impacts on WFD waterbodies cannot, at this stage, be ruled out.
	Solution	As a precaution, these factors should be addressed in the WFD scoping assessment, as proposed in the BESS section where it states, “A reasonable worst-case scenario will be assessed in the WFD Assessment.”

Firewater

<i>Document name: Appendix B: Long List of Major Accidents and Disasters</i>		
Section 3.8	Issue	WFD Surface waterbodies are not included as a potential receptor for firewater.
	Impact	Firewater has the potential to pollute surface waterbodies and degrade WFD status if not managed and mitigated appropriately.

	Solution	WFD Surface waterbodies should be included as a potential receptor for firewater.
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Surface Water Quality

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 3 – Table 2	Issue	Surface waterbodies have been screened out for the following activities: <ul style="list-style-type: none"> • Solar photovoltaic (PV) modules and mounting structures • Supporting Infrastructure: Inverters, Transformers, and Switchgear • Battery Energy Storage Systems (BESS)
	Impact	Potential for activities to be incorrectly screened out of the WFD report.
	Solution	The activities listed above should be screened into the WFD assessment.

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 4 – Table 3	Issue	The Physico-chemical quality elements has a group listed as 'Nutrient Conditions'. It is unclear which elements are considered within this generic grouping.
	Impact	Could lead to critical elements not being considered.
	Solution	Phosphate, Ammonia and Dissolved oxygen should be considered individually.

Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment		
Section 6.13	Issue	It is stated that " <i>The key elements of the Framework OEMP may include:</i> <ul style="list-style-type: none"> • <i>An overview of the Scheme and associated operation programme.</i> • <i>Prior assessment of environmental impacts (through the EIA).</i> • <i>Reduction of potential adverse impacts through design and other mitigation measures.</i> • <i>Monitoring of effectiveness of mitigation measures.</i> • <i>Corrective action procedure.</i>

		<i>Links to other complementary plans and procedures.”</i> All these elements are important and should be included.
Impact		If some of the listed elements are not included in the Framework OEMP then impacts may not be appropriately considered and mitigated.
Solution		All elements listed above should be included in the Framework OEMP.

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
Section 7.5	Issue	The following Scheme activities have been Screened Out of having any significant WFD impact risks assuming they avoid watercourses: <ul style="list-style-type: none"> • Solar photovoltaic (PV) modules and mounting structures • Battery Energy Storage Systems • Grid connection substations
	Impact	These activities could have significant WFD impact risks. Further investigation/assessment is necessary.
	Solution	These should be included in the WFD report.

Screening of Scheme Activities

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
Section Table 2	Issue	Screening assessment of scheme activities completed before design information available.
	Impact	Potential for activities to be incorrectly screened out.
	Solution	Ensure screening assessment is revisited once further design information is available.

Culverting

<i>Document name: Appendix D: Water Framework Directive Screening & Scoping Assessment, Appendix E: Environmental Mitigation and Commitments Register, Leoda Solar Farm EIA Scoping Report Main Report</i>		
	Issue	Culverts are potentially proposed as part of the scheme although proposals are not developed.
	Impact	Culverts can negatively affect the water environment in a number of ways. The Environment Agency opposes the culverting of any watercourses and instead prefers the

		installation of a temporary clear-span bridge crossing. This is in line with our policy regarding culverts. We will normally only grant a permit for a culvert if there is no reasonably practical alternative, and if the detrimental effects would be sufficiently minor that a more costly alternative would not be justified or there are reasons of overriding public/economic interest. The Applicant should consider the effects of proposed crossings on hydrology, biodiversity (including fisheries) and geomorphology.
	Solution	Designs should avoid culverting of any watercourse and consider where existing culverts can be removed. This could support WFD objectives and BNG initiatives.

Appendix 4 – General comments for consideration and advice to the Applicant

Flood Risk

Development Lifetime

Section 2.6.1 notes that the DCO application will give a definite lifetime for which the scheme may be operational for, for example 40 to 60 years. The guidance on climate change allowances for flood risk assessment available online at [Flood risk assessments: climate change allowances - GOV.UK](#) provides steer with regards to climate change uplifts for different epochs. Based on the example lifetime proposed in section 2.6.1 we would recommend that the 2080's epoch is considered. As the development would be classed as "Essential Infrastructure" the higher central climate change allowance should be used to inform the design event, and a Credible Maximum scenario should be assessed as a sensitivity test.

Flood Modelling

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 2.4.3, page 39	Issue	Any proposed access crossings should be designed so that the soffit level of any bridges/crossings sits above the design flood level with an allowance for freeboard.
	Impact	Inappropriate design of crossings could lead to increases in flood risk and difficulties associated with access and egress to the site.
	Solution	Careful consideration will need to be given to how the design flood level will be determined for any proposed crossings. Typically, this would be determined by undertaking hydraulic modelling or referring to existing detailed hydraulic modelling data (where available and suitable). Any proposed crossings should be designed such that they do not increase flood risk elsewhere.

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 9.7.14, page 190	Issue	It is suggested that the majority of the Solar PV Site is in Flood Zone 1 and development in this area is considered acceptable without the need for additional flood risk mitigation. The Applicant should be aware that there is an evidence gap in flood risk information. Some watercourses which cross the site have no associated Flood Zone mapping due to the small size of their respective

	catchments. There could be flood risk associated with watercourses which have smaller catchments, it is just not mapped or included within the Flood Map for Planning.
Impact	Flood risk could be underestimated.
Solution	<p>The new Risk of Flooding from Surface Water (RoFSW) dataset published in January 2025 is a useful starting point for establishing the flood risk associated with smaller Ordinary Watercourses. Further information is available online at: Updates to national flood and coastal erosion risk information - GOV.UK. Please note however, where a reliance is being placed on existing flood risk products such as the RoFSW mapping then clear justification should be provided as to why this is a suitable proxy for representing fluvial flood risk. In some cases, more detailed hydraulic modelling could be required to understand the impacts of flood risk to the development and because of the development, particularly when understanding flood risk to more sensitive infrastructure such as the BESS and substation.</p>

Environment Agency Risk of Flooding Mapping

Table 9-1 (p.180) notes that there are ephemeral drainage channels within the site draining from west to east. Please note the Risk of Flooding from Surface Water (RoFSW) mapping has been recently updated (January 2025) and may help to give some initial indications as to the potential flood risk associated with these channels. Please bear in mind that this dataset is based on a direct rainfall methodology and employs different methods when compared to fluvial flood risk models. When producing the Flood Risk Assessment, the Applicant should consider the latest available RoFSW data.

The production of the new Risk of Flooding from Rivers and Sea dataset at the end of January 2025 may provide some useful information. Further information is available online at: [Updates to national flood and coastal erosion risk information - GOV.UK](#).

Hydraulic Modelling

Section 9.8.5 (p.192) notes that requirements for hydraulic modelling will be discussed with the Environment Agency and Local Lead Flood Authority (LLFA). This is welcomed. The Environment Agency holds detailed hydraulic modelling for the River Brant. Any available modelling information can be requested via

Inquiries@environment-agency.gov.uk. The Applicant should be aware that the Environment Agency are currently undertaking updated hydraulic modelling for the Upper Witham and River Brant although timescales at present regarding completion of this work are uncertain. The use of any modelling data needs to be checked in line with guidance on using modelling for FRAs, available online at: [Using modelling for flood risk assessments - GOV.UK](#). Any fluvial/tidal flood risk modelling which is developed or updated by the Applicant should be reviewed by the Environment Agency.

Fisheries, Biodiversity and Geomorphology

Water Vole

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
<i>Table 8-3</i>	Issue	Water vole has been recorded in the vicinity of the proposed scheme. Proposals for habitat suitability assessment are constrained to 10m within the site. It is highlighted that the quoted survey guidance (Water Vole Mitigation Handbook) for presence absence surveys indicates that surveys may be required at distances of at least 100m upstream and downstream of works footprints.
	Impact	Potential for impacts to this species to be overlooked.
	Solution	Dependent on scale of works to watercourses, wider survey areas for presence absence surveys could be required to inform impact assessment and avoidance and mitigation proposals.

Groundwater and Contaminated Land

BESS Locations

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
<i>Sections 2.3.29 to 2.3.35 and elsewhere</i>	Issue	A proposed location of the BESS and substation is not stated (e.g., 2.3.29 to 2.3.35). In 2.3.7 it refers to “ <i>One or more</i> ” BESS sites.
	Impact	We cannot assess or comment on risks and mitigation as the location(s) is not confirmed. In the absence of other information, a high risk should be assumed.
	Solution	Provide further information on proposed BESS and substation locations in subsequent reports. Consideration should be given to ground conditions, groundwater, and contaminated land when siting these features, including any mitigation which could be required.

Horizontal Directional Drilling

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Sections 2.3.44 and 2.3.45	Issue	<p>Horizontal Directional Drilling (HDD) is mentioned here and elsewhere in the report, but no specific detail or proposed mitigation is provided anywhere. HDD will need a fluid breakout plan and extreme care in Secondary A and Principal aquifers.</p> <p>A little more detail is given in Appendix D (WFD screening), but this is not an appropriate place to discuss mitigation. It should be provided in the main report.</p>
	Impact	Insufficient detail and mitigation for HDD could lead to unacceptable risks to controlled waters. We cannot agree to the use of HDD until we are satisfied with the proposed methodology.
	Solution	Provide additional information in the EIA.

Construction Environmental Management Plan

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Sections 2.4.12 to 2.4.15, 16.5.27, <i>Table 16-2</i>	Issue	<p>The summary of the proposed Construction Environmental Management Plan (CEMP) has no mention of contamination, either existing or introduced during works. This needs to be included in the plan.</p> <p>The potential for contamination to be introduced during works is mentioned in Section 9.6.4, but it is disappointing that this is not mentioned sooner.</p> <p>In Table 16-2, section on Waste, point 7, it states: <i>"Potentially contaminated made ground will be removed from excavations. Advice should be sought from an environmental specialist should materials suspected of being contaminated be uncovered. A procedure for dealing with unexpected contamination will be included within the CEMP."</i> We support this but again consider it should be mentioned sooner in the report. This procedure should apply to the whole operation, not just in relation to waste.</p>
	Impact	Failure to clearly consider contamination (either existing or introduced during works) could lead to an unacceptable risk to human health and the environment.

	Solution	The CEMP, Operational Environmental Management Plan (OEMP) and Decommissioning Environmental Management Plan (DEMP), or another appropriate document, should have a detailed summary of actions to take in the event of identifying suspected contamination. This should include ceasing all works within the bounds of the affected area and employing an appropriately qualified specialist to undertake further investigation. Results of the investigation and any proposed remediation will need to be agreed with the local authority and Environment Agency prior to commencing remediation. Remediation must be reviewed by the local authority and Environment Agency prior to construction works recommencing. We may request this as a DCO Requirement. This should be included in any summary of the proposed and framework documents to minimise the risk of it being overlooked.
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Connection Cables

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report; Appendix D: Water Framework Directive Screening & Scoping Assessment</i>		
<i>Main Report Section</i>	<i>Issue</i>	<i>The Applicant suggests that grid connection cables may be left in situ at decommissioning.</i>
2.6.3	Impact	<p>If cables to be left in situ are not cut and sealed adequately, they could be a risk to controlled waters. Cables and cable ducting can deteriorate over time, especially if left unmonitored in the subsurface.</p> <p>At the time of decommissioning, approved best practice might be to remove all cables.</p> <p>There could be local variations, such as chemical composition of soil or groundwater, which mean removal of all cables is the more environmentally appropriate option.</p>
Appendix D Section 6.20	Solution	Site-specific conditions should be assessed. Allowance should be made for removal of all cables in the DEMP and other decommissioning designs, in case this is the preferred solution at the time. The detailed DEMP should be reviewed and updated prior to decommissioning.

Construction Period Timescales

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>

Sections 2.4.1, 2.4.2 and 5.4.8	Issue	<p>There is some inconsistency over the construction period and if works will be undertaken in phases. For example:</p> <ul style="list-style-type: none"> 2.4.1 <i>“It is anticipated that the Scheme will be constructed over a continuous period rather than being phased”</i> 2.4.2 <i>“anticipated duration and indicative programme of each phase of construction work”</i> 5.4.8 <i>“The Scheme may be built in phases over a longer period”</i> <p>The construction programme may be mentioned elsewhere in the report.</p>
	Impact	<p>Inconsistency is confusing. Contradictory information could result in matters being overlooked. If permits are required for the works (for example, handling waste, or construction dewatering), these will need to be in place prior to works. Failure to have the correct permits in place prior to construction could lead to significant delays. Overrunning works resulting in expiry of permits or exemptions, or breach of permits for any reason, could be an offence.</p>
	Solution	<p>Prior to commencement of any works, establish a detailed work programme. Liaise with the Environment Agency at a very early stage to establish what permits or exemptions could be required and make the necessary applications.</p>

WFD Status Data

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.5.48 and 9.5.49	Issue	<p>WFD status for 2015 is provided. The Applicant should use the latest data, which is 2019 or 2022, as used in Appendix D.</p>
	Impact	<p>Use of out-of-date information could lead to errors.</p>
	Solution	<p>Ensure the latest data are used wherever applicable. For completeness, the statuses have not changed between assessment periods.</p>

Pollution Risks

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.7.1	Issue	<p>This section states <i>“The importance of water bodies will be determined from a holistic review of water body features and their attributes and will not rely on water quality alone due to the principle that no controlled water may be polluted (i.e.</i></p>

		<p><i>just because water quality may be poorer at a point in time does not mean a greater impact can be allowed).</i>"</p> <p>We are unclear what this sentence means. The Applicant appears to be suggesting that short term impacts need not be considered. This contradicts duration of effects outlined in 5.4.1 to 5.4.3.</p> <p>We are unclear what is meant by a principle that "<i>no controlled water may be polluted</i>". This could be interpreted in two ways; the Applicant does not consider it possible to pollute controlled waters, or that they intend to cause no pollution to controlled waters.</p>
	Impact	The meaning of this sentence is not clear. One interpretation would result in uncontrolled and unacceptable risk to controlled waters.
	Solution	This sentence needs to be rephrased. We require unambiguous clarity on this and the Applicant's position.

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.8.9	Issue	<p>This section states "<i>the risk from surface water drainage to surface or groundwater bodies will be assessed ... Given the very low risk the need for treatment measures is expected to be minimal.</i>"</p> <p>The risk has not yet been assessed, so this statement is unsupported and potentially damaging.</p>
	Impact	Assuming a very low risk without any supporting evidence can lead to insufficient mitigation and harm to sensitive receptors.
	Solution	Undertake all necessary risk assessments prior to making conclusions about what treatment and mitigation could be required.

Temporary Works

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 9.8.8	Issue	<p>This section states "<i>Temporary works will not be assessed unless they are of a potentially significant scale and have the potential to adversely affect flood risk or impact the quality or form of water features. The temporary works where such risks are considered significant (for example, excavations for the cable routes), will be identified and assessed within the FRA, Screening and Scoping WFD Assessment and ES.</i>"</p>

		We consider any temporary works could affect groundwater without appropriate mitigation. The risks do not need to be considered "significant".
	Impact	If temporary works are allowed to proceed with no mitigation, there could be unacceptable risk to controlled waters.
	Solution	Mitigation must be in place for all works. This could be in embedded mitigation in the CEMP, OEMP and DEMP.

Study Area

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 16.5.3	Issue	This section states " <i>The Study Area for ground conditions assessment includes the Site plus a 100 m buffer</i> ". We don't consider this to be sufficient. <u>NHBC guidance</u> suggests a study area up 250 m from the site boundary (Section 1.3.2, p.24). Large potentially contaminative sites at a greater distance should also be considered.
	Impact	An insufficient study area might mean that potential off-site sources of contamination are not considered. Ground gas and contaminated groundwater can travel more than 100m in certain conditions.
	Solution	Recommend following NHBC guidance, other industry best practice and professional judgement. Review the current assessment and update accordingly.

Piling

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 16.5.27 Table 16-2	Issue	EA guidance on piling (ref. 16-39) was archived in 2014 and is no longer the recommended document. The archived status is not acknowledged in this report.
	Impact	Use of out-of-date guidance is not good practice. Archived guidance may not take account of current policies and procedures. Reliance on such information could result in unacceptable harm to sensitive receptors.
	Solution	In this instance, we are happy for the Applicant to use this guidance, as we consider it still has value, but we would expect them to acknowledge its archived status and provide justification for its use.

		We suggest also referring to current guidance: Piling in layered ground: risks to groundwater and archaeology - GOV.UK
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Firewater

Document name: Leoda Solar Farm EIA Scoping Report Main Report; Appendix D: Water Framework Directive Screening & Scoping Assessment		
<i>Main Report Section 16.6.9, Table 16-3</i> <i>Appendix D Section 3.7, Table 2</i>	Issue	<p>The Applicant acknowledges firewater, especially from the BESS, has the potential to cause harm to sensitive receptors. A Framework Battery Fire Safety Management Plan (BFSMP) will be submitted with the DCO application. Currently there is minimal information about what will be in the plan.</p> <p>In Table 16-3, the potential receptors for Fire does not include controlled waters. We consider controlled waters as a viable receptor for fire and must be included.</p> <p>In Appendix D (WFD) 3.7 Table 2 the Applicant refers to controls laid out in the BFSMP to screen impacts of firewater out of further assessment. While this may be acceptable in principle, we cannot agree to this without detail of what the plan will include.</p> <p>Fire risk at other parts of the development has not been considered at all. Substations, transformers, cables, welfare facilities, fuel and oil storage, and any electrical units have the potential to set on fire.</p>
	Impact	<p>With no information about content or reference material for this plan, we cannot be confident that it will be fit for purpose.</p> <p>Failure to consider controlled waters as a receptor for fire, due to the risk posed by firewater, means that sufficient protections are not put in place.</p>
	Solution	<p>We recommend reference to guidance published by the National Fire Chief's Council (NFCC): Draft Guidance on Grid Scale Battery Energy Storage Systems (BESS) - NFCC [note that this is currently under review].</p> <p>We expect the BFSMP to include detailed information about capture, storage and disposal of firewater. The plan should</p>

		<p>explain if automatic or manual systems are to be used, and how these will be activated. The Applicant must ensure and demonstrate that sufficient water is available for fire suppression systems.</p> <p>If there are multiple BESS locations (DC-coupled option, see 2.3.32), each will need its own fire suppression system and firewater catchment.</p> <p>Fire risk and management at locations other than the BESS should be acknowledged and considered. Controlled waters should be included as a receptor for all fire, due to the risks posed by firewater.</p>
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Groundwater Protection Position Statements

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Section 16.5.31	Issue	The Applicant refers to Environment Agency LCRM guidance. We recommend reference is also made to the EA's approach to groundwater protection guidance: Groundwater protection position statements - GOV.UK
	Impact	Failure to consider groundwater can lead to unacceptable risks.
	Solution	Refer to Environment Agency guidance when completing further assessments.

OEMP Timescales

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report; Appendix E: Environmental Mitigation and Commitments Register</i>		
Main Report Sections 2.4.12, 2.5.4, 5.3.7, 5.4.5, 15.6.7, 16.5.28	Issue	Timescale for production of the framework OEMP is inconsistent. In some cases, we consider the production to be too late in the process. In 16.5.28 and Appendix E Table 1 ID GC-02 it states “A Framework OEMP will be prepared following grant of DCO”. 2.4.12 and 2.5.4 state the Framework OEMP “will accompany the DCO application”. This timescale is repeated elsewhere.
	Impact	Inconsistent information is confusing, and the Applicant cannot comply with their own timescales if they differ within the same report.

	Solution	We suggest all framework plans should be submitted with the ES for consistency and completeness. This allows consultees time to review and provide comment prior to DCO submission.
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Qualitative Assessment for Groundwater

<i>Document name: Appendix E: Environmental Mitigation and Commitments Register</i>		
<i>Table 1 ID</i> <i>WE-01</i>	Issue	This is a commitment to “ <i>qualitative assessment of potential effects on surface water quality from construction, operation and decommissioning of the Scheme</i> ”. A similar assessment for groundwater is not mentioned.
	Impact	The site is underlain by sensitive principal and secondary aquifers. If an assessment of the potential effects to these is not made, then there could be unknown unacceptable risks.
	Solution	Include a qualitative assessment of potential effects on groundwater quality from construction, operation and decommissioning of the Scheme.

Heat as a Pollutant

Heat as a groundwater pollutant was introduced in 2023 via the [Environmental Permitting \(England and Wales\) \(Amendment\) \(England\) Regulations 2023 SI No.2023/651](#):

‘pollutant’, in relation to England, means any—

- a. *substance*,
- b. *heat, or*
- c. *biological entity or micro-organism, which is liable to cause pollution;”*

We are mindful that work is being carried out in this area in relation to heating of groundwater from ground source heating and cooling systems but there is currently no guidance relating to the potential thermal implications of high voltage buried electricity cables.

The Environment Agency’s Chief Scientist’s Group has published a report for Ground Source Heating and Cooling (GSCHC) systems ([Environmental Impacts of Temperature Changes from Ground Source Heating and Cooling Systems](#)). In this study, a ‘thermal plume’ was defined as the region around a GSCHC system that experiences a 1 degree C temperature change or greater. While the study is not directly applicable to thermal emission from underground cables, an equivalent benchmark could be considered when assessing heat pollution from underground HV cables.

The Chief Scientist's Group states that the environmental factors with the greatest influence on thermal plume development include groundwater flow and bulk thermal conductivity. It identifies that impacts may occur by direct (temperature change) and indirect (e.g. changes in water chemistry) means.

At this stage we require the potential thermal implications of buried cables, in relation to risks to groundwater, to be considered further via desk-based assessment.

Information about Environmental Permits

If dewatering is required, it may require an environmental permit if it doesn't meet the exemption in The Water Abstraction and Impounding (Exemptions) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works.

Temporary dewatering from excavations to surface water: RPS 261 - GOV.UK
(www.gov.uk)

If the work doesn't meet the exemption and requires a full abstraction licence, applicants should be aware that some aquifer units may be closed for new consumptive abstractions in this area. More information can be found here:
Abstraction licensing strategies (CAMS process) - GOV.UK (www.gov.uk)

Please note that the typical timescale to process a licence application is 9-12 months. The Applicant may wish to consider whether a scheme-wide dewatering application rather than individual applications would be beneficial. We suggest talking to our National Permitting Service early in the project planning.

The applicant may also need to consider discharge of groundwater, especially if it is contaminated. More information can be found here: Discharges to surface water and groundwater: environmental permits - GOV.UK (www.gov.uk)

The use of drilling muds for the directional drilling may require a groundwater activity permit unless the 'de minimis' exemption applies. Early discussion about this is also recommended.

Sustainable Drainage Systems

The Government's expectation is that sustainable drainage systems (SuDS) will be provided in new developments wherever this is appropriate. The Environment Agency supports this expectation. Where infiltration SuDS are to be used for surface run-off from roads, car parking and public or amenity areas, they should:

- be suitably designed

- meet Governments non-statutory technical standards for sustainable drainage systems – these standards should be used in conjunction with the National Planning Policy Framework and Planning Practice Guidance
- use a SuDS management treatment train – that is, use drainage components in series to achieve a robust surface water management system that does not pose an unacceptable risk of pollution to groundwater

Where infiltration SuDS are proposed for anything other than clean roof drainage in a SPZ1, a hydrogeological risk assessment should be undertaken, to ensure that the system does not pose an unacceptable risk to the source of supply.

See the Environment Agency's approach to groundwater protection, position statement G13: [Groundwater protection position statements - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/g13-groundwater-protection-position-statements)

Fisheries

We are generally satisfied with the scope for assessing impacts on fish in the EIA. We note that the site is very near the River Brant; therefore, we recommend that robust mitigation measures are incorporated in the Construction Environmental Management Plan (CEMP) to control site runoff and pollutants. Increased levels of fine sediment and pollutants in watercourses can reduce the water quality, damage fish gills, and smother important habitat for feeding and spawning.

Where any dewatering takes place, mitigation measures in the CEMP should include whether a fish rescue is required beforehand. Additionally, where any pumping takes place, pumps should have screens fitted to ensure fish (including juvenile eel) are not entrapped into pumps. Measures should be included to ensure that spawning habitat is not lost and where spawning habitat is present then works should avoid key migration and spawning times.

Biodiversity

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Sections	Issue	Impact
8.1.3 & 8.5.10		A Preliminary Ecological Appraisal (PEA) report has been completed but the full report has not been shared. Only very brief summary information is provided in regard to habitats. It is not clear how much of the site has been accessed to inform the production of the PEA and Scoping Report.
	Impact	Information to inform scoping opinion absent (e.g. distribution of habitats/ proportion of the site accessed)
	Solution	Further consultation should be undertaken when further ecology baseline information is available.

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Section 8.6.5 to 8.6.10	Issue	The Applicant proposes to deliver at least 10% Biodiversity Net Gain (BNG) on site and references with measures such as field boundary enhancements and planting seed mixes. Aquatic and wetland habitats are not mentioned.
	Impact	Aquatic habitats may not be considered at the design stage when considering potential enhancements.
	Solution	<p>The Applicant is encouraged to consider how aquatic and wetland habitats could be incorporated into designs and the BNG strategy at the earliest possible stage. Cognisance to this should be taken during baseline surveys.</p> <p>Enhancements may be possible to the adjacent River Brant and associated corridor, as well as tributaries that may be present on site.</p>

Geomorphology

Document name: Leoda Solar Farm EIA Scoping Report Main Report		
Tables 8-3 and 8-7	Issue	Although the use of River Habitat Surveys (RHS) should be applauded, the authorised survey method for BNG watercourse metric is the “MoRPH” survey.
	Impact	Both survey methods are based, primarily, on the geomorphology of the watercourse and gather similar sets of data.
	Solution	To avoid duplication of effort, combine RHS and MoRPH surveys – i.e. undertake them at the same time if both methodologies need to be used. A central/representative section of the MoRPH survey reach could be used to gather RHS data if required. As with RHS, a trained and accredited MoRPH surveyor would have to be employed for these surveys.

Designing Watercourse Crossings

The following are general guiding principles to consider when designing watercourse crossings to avoid negatively affecting geomorphology and natural processes:

- Avoid unnecessary interference with natural processes. For instance, encourage use of trenchless techniques such as Horizontal Directional Drilling (HDD) to minimise the likelihood of cables entering the water environment.
- Ensure watercourse crossing design is informed by assessment of fluvial processes and geomorphology. For example, depth of HDD crossing should consider the likelihood of vertical channel change.

- Avoid designs which present legacy risks to natural processes and geomorphology beyond the project lifespan. For example, infrastructure such as access tunnels which are left in-situ after decommissioning could be exposed by future river movement, becoming an impediment to natural processes.
- Consider opportunities to deliver WFD mitigation measures as part of the design.
- Avoid preventing delivery of mitigation measures, e.g. avoid bringing cables to surface level in floodplains earmarked for future river restoration.

Notes:

- i. WFD applies to all surface waterbodies, not just those designated for monitoring purposes.
- ii. Small watercourses and WFD - watercourses with a catchment less than 10km² connected to a downstream WFD waterbody take the classification of that waterbody.
- iii. BNG guidelines indicate that structures built within 10 m of the bank top of a watercourse qualify as encroachment, which may affect the uplift score calculated using the BNG Watercourse metric.

[BNG guidance is mentioned here because our [Environment Agency] usual easement for structures, operations, launch pits is to be at least 8m away from the watercourse bank or landward base of fluvial defence structure/embankment (16m if defence structure is for tidal purposes). As stated in the note above, BNG watercourse metric considers anything within 10m of bank top to be encroaching on the watercourse.]

- Any potential construction, operational, and decommissioning phase impacts that the proposed scheme may have on the river must be subject to a WFD Assessment to the satisfaction of the Environment Agency.
- Any infrastructural developments on river/floodplain environments should be designed and delivered to have a minimal impact on natural river dynamics (e.g. erosion, deposition, meander migration etc.) and should not place any significant limitations on future river restoration projects.
- Geomorphologically dynamic behaviour is deemed likely to intensify in the next decades in line with Flood Estimation Handbook (Flood Estimation Handbook (FEH) | UK Centre for Ecology & Hydrology (ceh.ac.uk)). Therefore, any infrastructure developments should also take some account of the likelihood for increased lateral and vertical river dynamics anticipated to result from continued hydro-climatic intensification (e.g. 'a flood-rich epoch') over the remainder of the 21st century (i.e., future proofed designs that are not just based on present-day baseline geomorphological configuration/behaviour).
- If river crossings (bridges, culverts, and buried cables) are required as part of the development, we [Environment Agency] would expect to see geomorphologically robust designs that will cause minimal impacts on natural

fluvial processes operating in the river/floodplain environment over the course of the 21st century.

Further guidance regarding river crossings can be found in the following document: SEPA, 2010. Engineering in the water environment: good practice guide River crossings Second edition. SEPA
[NB this has been referred to in the EIA scoping bibliography]

Potential Habitats of Principal Importance

Section 8.5.11 refers to the inclusion of Rivers. All watercourses should be considered.

Watercourse Sensitivity

Care should be taken by the Applicant when determining watercourse sensitivity, especially the use of Q95 scores. Rivers with a higher Q95 flow are not more sensitive than rivers with a lower Q95. In the case of water quality, the reverse of this is true, with less dilution meaning a higher sensitivity to change. Some watercourses with low Q95 may also be winterburnes, and therefore cannot accommodate change easily, as they would be dry for most of the year.

WFD designation is a method of monitoring and classifying the ecological health of the water environment and not an indication of greater or lesser sensitivity to change. Therefore, watercourses with a WFD designation are no more sensitive than those which have not been designated.

Sensitivity to change cannot be determined from a desk study alone. When determining the sensitivity of a watercourse, the Applicant should ensure that professional judgement and the results of any surveys are also incorporated into the assessment.

Surface Water Quality

Best Practice Measures

Best practice measures must be put in place to minimise potential risk to surface water quality from the use of plant, refuelling, storage of fuel, storage and use of chemicals, treatment and discharge of wastewater.

Use of Chemicals for Panel Cleaning

Section 9.6.14 states that *“Mitigation for any risks from future Panel cleaning during operation will be presented, and may include, for example, the use of clean water*

with no added chemical products". The Applicant should be aware that if future Panel cleaning during operation includes chemical cleaning products all impacts to surface water quality and mitigation measures must be considered in the OEMP.

Water Resources

Consumptive Uses of Water

<i>Document name: Leoda Solar Farm EIA Scoping Report Main Report</i>		
Sections 9.5.36-39, 6.6, <i>Table 16-2</i>	Issue	The source(s) of supply for consumptive uses of water has not been identified in the scheme description or Water Environment chapter. Dust suppression techniques, concrete production, bentonite clay mixing for HDD, and machinery wash down are all consumptive activities.
	Impact	Potential water unavailability. This could pose major issues for the project particularly during the construction phase of the development where water will be critical for construction related activities (as listed above).
	Solution	We recommend a Water Resources Assessment form a water supply strategy to provide an options appraisal of sources of supply of water for these activities. In the event that Anglian Water cannot supply mains water, this will identify any <u>abstraction licensing requirements under the WRA1991</u> and will enable the Applicant to problem solve likely restrictions to water unavailability in what is a water stressed area.

Water Resource Assessment

Anglian Water Services (AWS), who supply the region of this development, is subject to licence reductions (caps) on its groundwater licences to manage the risk of deterioration of associated water bodies, according to the principles set out in the Water Environment (Water Framework Directive) (England and Wales) Regulations 2017 (WFD Regulations). The company's 2024 water resources management plan (WRMP24) has set out that until new sustainable supplies are available, supplies to existing customers and those to supply growth will be a result of deferring some licence changes under Regulation 19 of the Water Framework Regulations.

AWS has adopted a "Non-Domestic Water Requests Policy" for which it asks applicants who require non-domestic water supply to complete a Water Resource Assessment to understand water demands, water efficiency measures and to effectively forecast water supply requirements. Communications around this moratorium are expected presently with AWS's most recent approach outlined in

their draft WRMP Statement of Response (p.250, 4d [V2 Final WRMP24 Statement of Response \(anglianwater.co.uk\)](#)) which sets out that the company may not be able to supply all new non-domestic demands until new strategic supplies are developed. Therefore, we advise that the Applicant engages in conversation with AWS to ensure that supply can be achieved for the development's needs.

Dewatering

If dewatering is required, it will require an abstraction licence if it doesn't meet the criteria for exemption in [The Water Abstraction and Impounding \(Exemptions\) Regulations 2017 Section 5: Small scale dewatering in the course of building or engineering works](#). It may also require a discharge permit if it falls outside of the [regulatory position statement for de-watering discharges](#).

Consumptive abstraction from groundwater is not available in much of this area, more details can be found in the [Abstraction Licensing Strategy](#) for the catchment. If the dewatering activity can be demonstrated to be discharged to the same source of supply without intervening use (i.e. non-consumptive), this will increase the likelihood of a licence being granted.

Waste

Management of End of Life Industrial Batteries

BESS facilities are not regulated under the Environmental Permitting Regulations regime.

However, battery storage falls within the scope of the UK's producer responsibility regime for batteries and other waste legislation. This creates additional lifecycle liabilities which must be understood and factored into project costs.

Batteries have the potential to cause harm to the environment if stored inappropriately e.g. subject to a fire as the chemical contents escape from the casing. When a battery within a battery storage unit ceases to operate, it will need to be removed from site and dealt with in compliance with waste legislation. The party discarding the battery will have a waste duty of care under the Environmental Protection Act 1990 to ensure that this takes place.

The Waste Batteries and Accumulators Regulations 2009 also introduced a prohibition on the disposal of batteries to landfill and incineration. Batteries must be recycled or recovered by approved battery treatment operators or exported for treatment by approved battery exporters only.

Many types of batteries are classed as hazardous waste which creates additional requirements for storage and transport.

Manufacturing Waste

Solar panels, inverters, and other components produce waste during their manufacturing process. This includes materials like silicon, glass, metals, and chemicals. Although this waste is not directly generated on-site, its lifecycle impact should be considered as part of the environmental assessment of the project.

Decommissioning Waste

When a solar farm is decommissioned, not only do the panels need managing, but also other infrastructure like frames, cables, inverters, and batteries (if used for energy storage). This phase involves dismantling and disposing of or recycling these materials. The process can generate significant waste if not handled correctly, particularly with components that might be considered hazardous or difficult to recycle.

Construction Waste

During the construction phase, there may be waste from packaging materials, offcuts of materials used for mounting structures, excess concrete, and soil from earthworks. These need to be managed in compliance with waste regulations to minimize environmental impact and a permit may be required ([Waste: environmental permits - GOV.UK](#)). Dust mitigation and noise should be appropriately considered.

Regulatory Compliance

All waste management must comply with UK environmental regulations, which dictate how hazardous and electronic waste should be handled, transported, and disposed of or recycled. This includes adherence to the Waste Electrical and Electronic Equipment (WEEE) Directive for recycling solar panels although this site is likely to fall under the definition of a *Large-Scale Fixed Installation*. See [Electrical and electronic equipment \(EEE\) covered by the WEEE Regulations - GOV.UK](#)

Land Restoration

After decommissioning, the land must be restored to its previous condition or a suitable alternative use. This involves managing any residual waste or contamination that might have occurred during the operational life of the solar farm. Consideration should be given to: [Planning and aftercare advice for reclaiming land to agricultural use - GOV.UK](#)

Waste-related Environmental Permits

The following guidance covers waste authorisations only:
<https://www.gov.uk/guidance/waste-environmental-permits>

Movement of Waste Off Site – Duty of Care

The Environmental Protection (Duty of Care) Regulations 1991 for dealing with waste materials are applicable to any off-site movements of wastes.

The code of practice applies to you if you produce, carry, keep, dispose of, treat, import or have control of waste in England or Wales.

The law requires anyone dealing with waste to keep it safe and make sure it's dealt with responsibly and only given to businesses authorised to take it. The code of practice can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/506917/waste-duty-care-code-practice-2016.pdf

If you need to register as a carrier of waste, please follow the instructions here:
<https://www.gov.uk/register-as-a-waste-carrier-broker-or-dealer-wales>

Waste On Site – Contaminated Land

Excavated materials that are recovered via a treatment operation can be re-used on-site under the CL:AIRE Definition of Waste: Development Industry Code of Practice. This voluntary Code of Practice provides a framework for determining whether excavated material arising from site during remediation or land development works are waste.

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on-site operations are clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

The Environment Agency recommends that developers should refer to:

- [CL:AIRE Definition of Waste: Code of Practice](#)
- [EA Regulatory Position Statement 215: Treating small volumes of contaminated soil and groundwater](#)

Waste to be taken Off Site – Contaminated Land

Contaminated soil that is, or must be, disposed of, is waste. Therefore, its handling, transport, treatment and disposal is subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005
- Environmental Permitting (England and Wales) Regulations 2010
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standards BS EN 14899:2005 'Characterisation of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan'. The permitting status of any proposed treatment or disposal activity should be clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

If the total quantity of waste material to be produced at or taken off site is hazardous waste and is 500kg or greater in any 12-month period, the developer will need to register with us as a hazardous waste producer. Refer to our website at www.gov.uk/government/organisations/environment-agency for more information.

Movement of Waste Off Site – Duty of Care & Carriers, Brokers and Dealers Regulations Characterisation and Classification of Waste

In order to meet the Applicant's objectives for the waste hierarchy and obligations under the duty of care, it is important that waste is properly classified. Some waste (e.g. wood and wood based products) may be either a hazardous or non-hazardous waste dependent upon whether or not they have had preservative treatments.

Proper classification of the waste both ensures compliance and enables the correct onward handling and treatment to be applied. In the case of treated wood, it may require high temperature incineration in a directive compliant facility. More information on this can be found here: <https://www.gov.uk/how-to-classify-different-types-of-waste>

Use of Waste On Site – Authorisation or Permit Required

If materials that are potentially waste are to be used on-site, the Applicant will need to ensure they can comply with the exclusion from the Waste Framework Directive (WFD) (article 2(1) (c)) for the use of, 'uncontaminated soil and other naturally occurring material excavated in the course of construction activities, etc...' in order for the material not to be considered as waste. Meeting these criteria will mean waste permitting requirements do not apply.

Where the Applicant cannot meet the criteria, they will be required to obtain the appropriate waste permit or exemption from the Environment Agency.

A deposit of waste to land will either be a disposal or a recovery activity. The legal test for recovery is set out in Article 3(15) of WFD as:

- any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy.
- We have produced guidance on the recovery test which can be viewed at <https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits#how-to-apply-for-an-environmental-permit-to-permanently-deposit-waste-on-land-as-a-recovery-activity>.

You can find more information on the Waste Framework Directive here:

<https://www.gov.uk/government/publications/environmental-permitting-guidance-the-waste-framework-directive>

More information on the definition of waste can be found here:

<https://www.gov.uk/government/publications/legal-definition-of-waste-guidance>

More information on the use of waste in exempt activities can be found here:

<https://www.gov.uk/government/collections/waste-exemptions-using-waste>

Non-waste activities are not regulated by us (i.e. activities carried out under the CL:AIRE Code of Practice), however you will need to decide if materials meet End of Waste or By-products criteria (as defined by the Waste Framework Directive). The 'Is it waste' tool, allows you to make an assessment and can be found here:

<https://www.gov.uk/government/publications/isitwaste-tool-for-advice-on-the-by-products-and-end-of-waste-tests>

The direct link to CL:AIRE can be found here: <https://www.claire.co.uk/projects-and-initiatives/dow-cop>

The Waste Hierarchy and Resource Management in relation to Construction Wastes

The developer must apply the waste hierarchy as a priority order of prevention, re-use, recycling before considering other recovery or disposal options. Government guidance on the waste hierarchy in England can be found here:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf

Site Waste Management Plans (SWMP) are no longer a legal requirement, however, in terms of meeting the objectives of the waste hierarchy and your duty of care, they are a useful tool and considered to be best practice.

Management and Reporting Systems

Where a development involves any significant construction or related activities, we would recommend using a management and reporting system to minimise and track the fate of construction wastes, such as that set out in PAS402: 2013, or an appropriate equivalent assurance methodology. This should ensure that any waste contractors employed are suitably responsible in ensuring waste only goes to legitimate destinations.

Environmental Permits

If Environment Agency permit/authorisation is required, we recommend engaging with our National Permitting Service as early as possible. Please also see the following pre-application advice: <https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit>

END

From: [REDACTED]
To: [Leoda Solar Farm](#)
Subject: Leoda Solar Farm EIA Scoping Consultation - EN0110016
Date: 25 February 2025 12:43:45
Attachments: [image001.jpg](#)

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Thank you for consulting the Forestry Commission on this proposal. As a Non-Ministerial Government Department, the Forestry Commission provide no opinion supporting or objecting to an application. Rather we provide advice on the potential impact that the proposed development could have on trees and woodland including ancient woodland.

There are no Ancient Woodlands within the proposed site. However we note that there are a few small fragmented areas of mixed deciduous woodland within both the solar PV area and the grid connection corridor.

Priority Habitat:

Mixed Deciduous woodlands are on the National Forest Inventory and the Priority Habitat Inventory (England).

They were recognized under the UK Biodiversity Action Plan as being the most threatened, requiring conservation action. The UK Biodiversity Action Plan has now been superseded but this priority status remains under the Natural Environment & Rural Communities Act 2006. (NERC) Sect 40 “Duty to conserve and enhance biodiversity” and Sect 41 – “List of habitats and species of principle importance in England”.

Section 5.11.27 of EN-1 of the Overarching National Policy Statement for Energy states:

“Existing trees and woodlands should be retained wherever possible.....The applicant should assess the impacts on, and loss of, all trees and woodlands within the project boundary and develop mitigation measures to minimise adverse impacts and any risk of net deforestation as a result of the scheme. Mitigation may include, but is not limited to, the use of buffers to enhance resilience, improvements to connectivity and improved woodland management. Where woodland loss is unavoidable, compensation schemes will be required, and the long term management and maintenance of newly planted trees should be secured”

Fragmentation is one of the greatest threats to mixed deciduous woodland. Woodlands can suffer loss or deterioration from nearby development through loss of connectivity, damage to soils, roots and vegetation and changes to drainage and air pollution from an increase in traffic or dust, particularly during the construction phase of a development. This is a particular concern where the woodland would become isolated in its landscape and surrounded by development on several sides or is completely surrounded by it.

For any woodland within the development boundary, land required for temporary use or land where rights are required for the diversion of utilities, the Root Protection Zone must be taken into consideration. The Root Protection Zone (as specified in British Standard 5837) is there to protect the roots of trees, which often spread out further than the tree canopy.

Protection measures include taking care not to cut tree roots (e.g., by trenching) or causing soil compaction around trees (e.g., through vehicle movements or stacking heavy equipment) or contamination from poisons (e.g., site stored fuel or chemicals) and fencing off these areas to prevent unintended incursions into the root protection zone as well as dust prevention measures to reduce any potential impact of dust pollution.

Grant Funded Woodland:

It should be noted that some of the small woodlands within the solar PV area of the project site were established or managed with the support of public money in the form of the Farm

Woodland Premium Scheme (FWPS)

These grants are still in 'obligation'. The obligation period can last for up to thirty years from the date the first instalment of grant was paid. The landowner is expected to meet all of the Terms and Conditions of the agreement contract. Failure to do so is likely to require the Forestry Commission to seek to recover all of the relevant grant that has been paid to avoid public money being wasted.

Net Deforestation and Tree Planting:

It is expected that there will be a thorough assessment of any loss of all trees within the project boundary and the development of mitigation measures to minimise any risk of net deforestation because of the scheme.

Hedgerows, individual trees and woodlands within a development site should also be considered in terms of their overall connectivity between woodlands affected by the development. Perhaps with the creation of some larger woodland blocks and hedgerow/hedgerow trees between the existing woodland blocks on site, to link them and ensure maximum gains to increase habitat connectivity, making woodlands more resilient and to benefit biodiversity across the whole site, not solely in specific isolated areas to be used as screening. Ideally we would like to see woodland creation to be carried out in 5ha blocks or that connecting planting with existing woodlands, should create blocks of at least 5ha.

With the Government aspiration to increase tree and canopy cover to 16.5% of land area in England by 2050, The Forestry Commission is seeking to ensure that tree planting is a consideration in every development not just as compensation for loss. However, there are a number of issues that need to be considered when proposing significant planting schemes: The species and provenance of new trees and woodland needs to be considered to ensure a resilient treescape which can cope with the full implications of a changing climate. The biosecurity of all planting stock also needs to be considered to avoid the introduction of pests and diseases, particularly in areas where there are ancient woodlands.

Plans should also be in place to ensure the long term management and maintenance of new and existing woodland, perhaps by creation of a UK Forestry Standard compliant management plan, with access also needing to be considered for future management.

We hope these comments have been useful to you. If you require any further information, or would like to discuss woodland creation or management, please don't hesitate to contact me.
Best wishes



Local Partnership Advisor

East & East Midlands

Tel: [REDACTED]

[\[REDACTED\]@forestrycommission.gov.uk](mailto:[REDACTED]@forestrycommission.gov.uk)



From: [REDACTED]
To: [Leoda Solar Farm](#)
Subject: Fulbeck Parish Council Comments on scoping Environment Statement on Proposed NSIP Leoda Solar Farm
Date: 03 March 2025 19:41:55

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Fulbeck Parish Council, as a local consultee, welcomes the opportunity to engage with the Planning Inspectorate on the Pre-Application Process for the Leoda Solar Farm, an NSIP with potentially significant impact on our local environment.

-Fulbeck Parish Council would ask that the Environmental Statement robustly assesses the likely significant impact of the proposed NSIP Leoda solar farm project on our local environment and wildlife on what is currently a diverse mix of mixed arable and livestock grazing agricultural land, woodland, hedgerows, and open countryside.

-The ES should include detailed justification and explanation as to the choice and appropriateness of this particular location for an NSIP Solar farm, as current consensus of opinion is that the land is high-quality farmland, as opposed to some reports circulating which state that it is low-quality farmland.

-The applicant to ensure that a sufficient level of appropriate environmental surveying is carried out throughout 2025 to assess the current levels of biodiversity across the proposed development site to inform the ES and EIA processes, with particular emphasis on protected species such as bats, badgers and great crested newts which have been previously recorded in the local area.

It should be noted that the village of Fulbeck, largely a Conservation Area with a plethora of listed buildings, forms part of an area designated by Natural England as the Southern Lincolnshire Edge (Area 47). The SLE is described as “an area of clear character defined by the dramatic limestone cliff to the west and the dip slope that drops gently away to the edge of the fens in the east... It is an open landscape with far-reaching views over the Trent and Belvoir Vales...”. *More detailed information re the SLE can be found on the Natural England website.*

Cllr June Hutchinson, Fulbeck Parish Council Chair – on behalf of FPC

From: [FPL - Conx Request](#)
To: [Leoda Solar Farm](#)
Subject: RE: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 04 February 2025 10:34:14
Attachments: [image003.jpg](#)
[image004.png](#)
[image005.png](#)

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Hi,

We can confirm Fulcrum Pipelines Limited do not have any existing pipes or equipment on or around the above site address.

Please note that other gas transporters may have plant in the area which could be affected by your proposed works.

We will always make every effort to help you where we can, but Fulcrum Pipelines Limited will not be held responsible for any incident or accident arising from the use of the information associated with this search. The details provided are given in good faith, but no liability whatsoever can be accepted in respect thereof.

If you need any help or information simply contact Fulcrum on 03330 146 455.

In case of an emergency please phone 0800 111 999.

Kind regards,

FPL - Conx Request

e: [ConnectionRequest@fulcrum.co.uk](#) |w: [www.fulcrum.co.uk](#)
a: Fulcrum, 2 Europa, Sheffield, S9 1XH, T: 03330 146 466
View Business Park

Tell us how we're doing:

We'd really appreciate feedback on your experience with us today. So, please tell us how we're doing by emailing [feedback@fulcrum.co.uk](#)

From: Leoda Solar Farm

Sent: Monday, February 3, 2025 2:44 PM

To: Leoda Solar Farm

Subject: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation



CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Dear Sir/Madam

Please see attached correspondence on the proposed **Leoda Solar Farm**.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its

For the attention of: [REDACTED]
EIA and Land Rights Advisor (HEO)
The Planning Inspectorate
Temple Quay House
Temple Quay
Bristol
BS1 6PN

Chemicals, Explosives and
Microbiological Hazards
Division – Unit 4

NSIP Consultations
Land Use Planning Team
Building 1.2,
Redgrave Court,
Bootle L20 7HS

Date: 14th February 2025

NSIP.applications@hse.gov.uk

References: CM9 Ref: 4.2.1.7322.
NSIP Ref: EN0110016

<http://www.hse.gov.uk/>

Dear [REDACTED],

PROPOSED LEODA SOLAR FARM
PROPOSAL BY LEODA SOLAR FARM LIMITED
INFRASTRUCTURE PLANNING (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS 2017
(as amended) REGULATIONS 10 and 11

Thank you for your letter of 3rd February 2025 regarding the information to be provided in an environmental statement relating to the above project. HSE does not comment on EIA Scoping Reports but the following information is likely to be useful to the applicant.

HSE's Land Use Planning Advice

Will the proposed development fall within any of HSE's consultation distances?

According to HSE's records, the proposed application boundary for this Nationally Significant Infrastructure Project is not within the consultation zone of any major accident hazard sites ['MAHS'] or within the consultation zones of any major accident hazard pipelines ['MAHP']. This is based on the "Site Boundary" in drawing Figure 1.1 in the Environmental Impact Assessment ['EIA'] Main Scoping Report January 2025 [EN0110016-000003-Leoda EIA Scoping Report January 2025.pdf](#)

HSE's Land Use Planning advice [[HSE: Land use planning - HSE's land use planning methodology](#)] is dependent on the location of areas where people may be present and their type within HSE's land-use planning zones. Based on the information in the EIA Scoping Report, January 2025 it is unlikely that HSE would advise against the development. Please note that the advice is based on HSE's existing policy for providing land-use planning advice and the information which has been provided. HSE's advice in response to a subsequent planning application may differ should HSE's policy or the scope of the development change by the time the Development Consent Order application is submitted.

Would Hazardous Substance Consent be needed?

Based on the EIA it is not clear whether the applicant has considered the hazard classification of any chemicals that are proposed to be present at the development. This may be because there are no relevant hazardous substances.

Hazard classification is relevant to the potential for accidents. For example, hazardous substances planning consent is required to store or use any of the Categories of Substances or Named Hazardous Substances set out in Schedule 1 of [The Planning \(Hazardous Substances\) Regulations 2015](#) as amended, if those hazardous substances will be present on, over or under the land at or above the

controlled quantities. There is an 'addition rule' in Part 4 of Schedule 1 for below-threshold substances. If hazardous substances planning consent is required, please consult HSE on the application.

Consideration of Risk Assessments

Regulation 5(4) of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 requires the assessment of significant effects to include, where relevant, the expected significant effects arising from the proposed development's vulnerability to major accidents. HSE's role in NSIPs is summarised in Advice Note 11 'working with public bodies in the infrastructure planning process' Annex G on the Planning Inspectorate's website Nationally Significant Infrastructure Projects - Advice on working with public bodies in the infrastructure planning process, Annex G: The Health and Safety Executive - GOV.UK (www.gov.uk). This document includes the consideration of risk assessments under the heading "Risk assessments".

In Chapter 16.6 of the EIA EN0110016-000003-Leoda EIA Scoping Report January 2025.pdf provides some possible major accidents and disasters. Note, that there are no requirements for any risk assessments submitted to and approved by the relevant planning authority to also be considered by HSE.

Explosives sites

Explosives Inspectorate has no comment to make as there are no HSE licenced explosives sites in the vicinity of the proposed development.

Electrical safety

No comment from a planning perspective

At this time, please send any further communication on this project directly to the HSE's designated e-mail account for NSIP applications at nsip.applications@hse.gov.uk. We are currently unable to accept hard copies, as our offices have limited access.

Yours faithfully,

**CEMHD4
NSIP Consultation Team**

From: [Leoda Solar Farm](#)
To: [Midlands ePlanning](#)
Cc: [\[REDACTED\]](#)
Subject: HISTORIC ENGLAND ADVICE EN0110016 our ref PL00798068 Leoda Solar Farm - Environmental Impact Assessment scoping response
Date: 03 March 2025 17:14:31
Attachments: [Image001.jpg](#)
[Image002.jpg](#)
[Image003.jpg](#)
[Image004.jpg](#)
[Image095574.jpg](#)

You don't often get email from [\[REDACTED\]@historicengland.org.uk](#). [Learn why this is important](#)

HISTORIC ENGLAND ADVICE

Your reference EN0110016- Our reference PL00798068

Leoda Solar Farm - Environmental Impact Assessment scoping response

Dear PINS

Historic England

The Historic Buildings and Monuments Commission for England (HBMCE) is better known as Historic England, and we are the Government's adviser on all aspects of the historic environment in England, including historic buildings and areas, archaeology and historic landscapes. We have a duty to promote conservation, public understanding and enjoyment of the historic environment. We are an executive Non-Departmental public body and we answer to Parliament through the Secretary of State for Culture, Media and Sport (DCMS).

Proposal

Ground-mounted solar electricity generating station with a targeted gross output of 500 to 600 Megawatts (MW) and associated grid connection infrastructure.

Historic England Advice

The layering of information sources is crucial to an effective process of heritage assessment. Portable antiquity scheme data should be requested from the PAS in addition to HER data. Geophysical survey, deposit modelling air photo data and lidar alongside cartographic and documentary sources, fieldwalking etc and targeted trial trenching all building a integrated picture of archaeological potential.

We note the designated heritage assets identified, radii for search may useful but should be used with reference to professional judgement where longer views and vista's contribute to the significance of assets. Highly graded listed buildings should be contextualised with Conservation Areas and Grade II buildings and associated undesignated assets and historic landscape character.

Kinetic as well as fixed point views should be considered.

Without prejudice to those assets identified in the scoping report or other matters which will emerge through EIA we note the following:-

Views to, between and in juxtaposition Church towers and steeples (see list of highly designated churches in the Scoping Report)

Potential views N towards Lincoln Cathedral on the Ermine Street* and A15.

Remains alongside High Dyke / Ermine Street - Roman road running from Durobrivae to Lincoln (our ref 1031813)

Setting of Somerton Castle – Scheduled and listed Grade I

Setting of Templar Bury GI listed and Scheduled Monument

Setting of Castle Hill Scheduled Monument Welbourn

Earthwork Features west of Welbourn

Crop Mark features east of Brant Broughton

Earthwork Features North West of Leadenham

Wellingore Airfield (our ref 1431300) The remains of the former World War Two airfield of RAF Wellingore. It opened in 1935 and closed in 1945.

If air crash sites present refer to MoD and beware of unexploded ordnance (UXO)

As general advice the earlier and more thorough site investigations that are made the greater the ability of energy projects to deploy their relatively high degree of elasticity in design such that impacts can be avoided, minimised or effectively mitigated. We refer you also to the expertise of the County Heritage Advisors and District Conservation Officers. We refer you in particular to the following published advice also.

<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

<https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/>

<https://historicengland.org.uk/images-books/publications/water-features-historic-settings/>

<https://historicengland.org.uk/images-books/publications/gpa3-setting-of-heritage-assets/heag180-gpa3-setting-heritage-assets/>

<https://historicengland.org.uk/images-books/publications/commercial-renewable-energy-development-historic-environment-advice-note-15/>

<https://historicengland.org.uk/images-books/publications/historic-military-aviation-sites/>

Please copy future correspondence to e-midlands@HistoricEngland.org.uk

Yours sincerely

[REDACTED]

Team Leader (Development Advice)

Midlands Region

Historic England

The Foundry, 82 Granville Street, Birmingham B1 2LH

Direct Line [REDACTED]

<http://www.historicengland.org.uk/> | [@HistoricEngland](#)



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historicengland.org.uk

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From: Leoda Solar Farm <LeodaSolarFarm@planninginspectorate.gov.uk>

Sent: 03 February 2025 14:52

To: Midlands ePlanning <e-midlands@HistoricEngland.org.uk>; [REDACTED]@HistoricEngland.org.uk; [REDACTED]

@HistoricEngland.org.uk

Cc: Leoda Solar Farm <LeodaSolarFarm@planninginspectorate.gov.uk>

Subject: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

– WARNING: This is an external message. Please use caution when replying, opening attachments or clicking on any links in this e-mail. –

FAO [REDACTED] and [REDACTED]

Dear [REDACTED],

Please see attached correspondence on the proposed Leoda Solar Farm.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany his future application.

The Planning Inspectorate has identified you as a consultation body to inform the Scoping Opinion and is therefore inviting you to submit comments by 03 March 2025. The deadline is a statutory requirement that cannot be extended.

Further information is included within the attached letter.

[REDACTED]
The Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol
BS1 6PN

Sent by E-Mail to:
LeodaSolarFarm@planninginspectorate.gov.uk

Ref: EN0110016

Date: 3 March 2025

[REDACTED]
Principal Infrastructure Officer
Planning Services
Lincolnshire County Council
County Offices
Newland
Lincoln LN1 1YL

Tel: [REDACTED]
E-Mail: nsips@lincolnshire.gov.uk

Dear [REDACTED]

Proposal: Scoping Consultation under The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application: Leoda Solar Farm comprising the installation of solar photovoltaic (PV) generating panels and associated development such as electrical equipment, cabling and on-site battery energy storage system (BESS) facilities

Location: West of Leadenham, Welbourn and Wellingore, east of Brant Broughton and to the north of the A17 road.

Thank you for your letter dated 3 February 2025 consulting Lincolnshire County Council (the Council) on the Environmental Impact Assessment (EIA) Scoping Report prepared by AECOM on behalf of Leoda Solar Farm Limited dated January 2025.

The Council has a close working relationship with North Kesteven District Council (NKDC) on NSIP projects that has enabled us to share resources on this project. Please note the following topic areas are relevant to both authorities:

- Landscape – external agricultural consultants representing both authorities on soils and agriculture.
- AAH – external landscape consultants representing both authorities on landscape and visual impacts.

The Council has reviewed the information provided and has the following comments to make in respect of the EIA Scoping. Please note the comments are listed in chapter order.

Chapter 1: Document Purpose

Planning Policy Context

In Section 1.2 the Scoping Report catalogues the national and local planning policies relevant to the assessment with a summary provided in the relevant chapter for each environmental topic.

The initial summary of impacts considered by the Secretary of State in decision making, as addressed in NPS -EN3, also includes Glint and Glare, which the scoping report omits from its list of impacts at 1.12.13. It is however noted in 5.7.4 that Glint and Glare is considered under Chapter 16 'Other Topics'.

Section 1.2.19 of the Scoping Report addresses the Local Planning Policy context. The Council is pleased to see reference to Lincolnshire County Council's adopted Mineral and Waste Local Plan. It should be noted however, that this document is currently under review, and as such any emerging local plan document should also be considered.

Chapter 2: The Scheme

Operational and Maintenance Activities

EN3- para 2.10.10 The British Energy Security Strategy sets out that government is supportive of solar that is "co-located with other functions (for example, agriculture, onshore wind generation, or storage) to maximise the efficiency of land use". As such it is welcomed that the potential for the Site to be used for sheep grazing is also being explored by the Applicant. Grazing however needs to be designed into the scheme early, and not as an afterthought. Please note the exploration of agricultural uses for the site should not necessarily be limited to sheep grazing as there are a number of different agri-voltaic options which could be considered.

Decommissioning

Paragraph 2.6.1 of the Scoping report states: '*The DCO application will give a definite lifetime for the Scheme, which may, for example, be 40 or 60 years, after which the project would be decommissioned. The equipment will be reviewed at the end of the design life of the Scheme to determine whether it remains in a viable condition to continue operation after that time.*' It is unclear whether this means that the panels once disassembled will be re-used elsewhere, or an application would be made to extend the operational lifetime of the solar farm. Clarification is required and where necessary this would need to be reflected in the ES. NPS EN-3 paragraph 2.10.151 states that 'the time limited nature of the solar farm, where a time limit is sought as condition of consent is likely to be an important consideration for the Secretary of State'

Consideration should also be given to the process and impact of early decommissioning potentially due to instances such as efficiency losses, output, technological advancements or the impacts of adverse weather.

Chapter 3: Alternatives Considered

In 2.4.1 of the Scoping Report, the Leoda Solar Farm construction programme is based around the National Grid Navenby Substation receiving approval, with an anticipated construction start of 2028 for the Leoda Solar Farm with operation projected to commence in 2030. The Council wish to raise concern in regard to the potential prematurity of the scheme. The Navenby substation will be determined under the Town and County Planning Act by NKDC, however the application has not yet been submitted to the local planning authority. The Navenby substation timeline on the National Grid website¹ intends for an application to North Kesteven District Council (alongside a S37 application to DESNZ) in Autumn 2025 with a decision expected in Spring 2026, construction then starting in mid-late 2026 with the substation being operational in late 2029. Should the Navenby substation as proposed not come to fruition, or delivery is late due to planning or construction delays there is no alternative connection option proposed. Delays in grid connection would potentially remove the benefits of the solar farm providing renewable energy before the government's target date of 2030.

Schedule 4 (2) of the Infrastructure Planning (Environmental Impact Assessment)

Regulations 2017 states that an ES must include a description of its reasonable alternatives (e.g in terms of development design, technology, location, size and scale) considered by the developer which are relevant to the proposed project and its specific characteristics and an indication of the main reasons for selecting the chosen option including a comparison of the environmental effects. Under the 'Alternatives Considered' section, the alternatives proposed for consideration only appear to relate to aspects of design as opposed to consideration of alternative sites, alternative grid connections options and/or alternative timelines with regard to the delivery of the Navenby substation. It is considered that a wider consideration of alternatives should be provided.

In the context of alternatives considered, and in line with EN-3 paragraph 2.10.29, '*the applicant should, where possible utilise suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land avoiding the use of BMV agricultural land where possible*', the Council would suggest the applicant avoids the use of BMV land where possible.

Currently the operational lifetime of the solar farm is undecided. Should the upper figure of 60 years be proposed, the ES should consider the full implications and impact of this 'temporary' permission.

Chapter 4: Consultation

The Council has provided initial feedback on the Leoda Solar Farm non statutory consultation process which have been addressed. The Council would appreciate early input into the Statement of Community Consultation for the statutory consultation.

¹ Navenby Substation <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/navenby-substation>

Chapter 5: Environmental Impact Assessment Methodology

Mitigation

At 5.3.7 of the Scoping Report, it is noted that there are a number of Framework Plans (Framework Construction Environmental Management Plan (CEMP), Framework Operational Environmental Management Plan (OEMP) and Framework Decommissioning Environmental Management Plan (DEMP) to guide appointed contractors, suppliers and operational managers to plan, implement and deliver environmental management, mitigation and monitoring requirements throughout the lifetime of the Scheme. This paragraph further states that '*It is intended that the detailed Plans will be 'live' documents and will be updated as and when there are changes to the project team or should additional information become available.*' It is assumed the detailed plans would form part of the discharge of requirements, and therefore more than one discharge of requirement would be required given their 'live' nature.

Assessment of Impacts and Significance of Effects

Paragraph 5.5.15 of the Scoping Report states that '*Where mitigation measures are identified to eliminate, mitigate or reduce adverse impacts, these have either been incorporated into the design of the Scheme; translated into construction commitments; or operational or managerial standards/procedures. The ES will highlight 'residual' effects, which remain following the implementation of suitable mitigation measures, and classify these in accordance with the effect classification terminology given above.*' It is welcomed that that the embedded mitigation for construction (5.3.6) will be reported in the relevant ES chapters to enable a consideration of its suitability and effectiveness. It would however be beneficial if any operational measures could also be reported/summarised.

Cumulative Effects

Section 5.6.2 of the Scoping Report identifies the proposed approach to cumulative assessment. The Council is pleased to see that both in-combination and the cumulative effects of a number of different projects will be considered as part of the assessment.

The study area for the assessment of inter project effects should be sufficient in extent to capture all relevant projects within the Lincolnshire geographical boundary. Currently in 5.6.10 of the Scoping Report, the Zone of Influence has been anticipated as a maximum of 5km. The Council considers this area of search too narrow and too prescriptive as there may be other factors across the wider county geography such as Best and Most Versatile Land, haulage routes, construction/employment traffic and port deliveries which overlap with other projects both geographically and/or temporally. The Council would also recommend these extents are discussed and further reviewed with regard to Landscape and Visual Assessment as the full extent of potential visibility of the development is not yet fully known. Zone of Theoretical Visibility (ZTV) mapping within Appendix 10.1 identifies potential visibility beyond these extents.

The cumulative assessment should include the long list identified in paragraph 5.6.12 a review of planning applications/permissions, the development plan in Lincolnshire and should also include other projects that are currently proposed through the Development Consent Order (DCO) process.

There is also the potential for significant cumulative impacts to arise from the combined effects of these schemes. For example, in respect of loss of best and most versatile (BMV) agricultural land and impacts on the transport network. Consideration should be given to the cumulative effects over the lifetime of the developments, for example the combined impacts of operational failures and replacement, decommissioning (waste generation) of multiple solar schemes with similar 40 to 60 year lifespans.

The Scoping Report does not contain a list of projects which the applicant considers would contribute to cumulative impacts. The Council would welcome contact with the applicant to identify those projects considered as Reasonably Foreseeable Future Projects (RFFPs). The list of developments should also be kept under review as several of the schemes mentioned above are likely to have completed the DCO process in advance of the Leoda Solar Scheme.

The Council would expect the ES to contain a separate chapter on the assessment of cumulative effects covering both intra project and inter projects effects. Which, in addition to setting out the approach and methodology, clearly identifies all other relevant projects, the interrelationship between projects and the potential for cumulative effects, any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources. It should also provide an assessment of the significance of the potential cumulative impacts identified, likely duration of the impacts (including phasing details) and mitigation measures.

Chapter 6: Climate Change

In Table 6-9 Potential Sources of GHG emissions it is noted that the Operation Stage of the Scheme has been scoped in. In the primary emission sources column, it is noted 'GHG emissions from energy consumption, material use and waste generation as a result of Site maintenance' - it is assumed this will take into account the annual failure rate and replacement of panels (including waste and recycling) alone and in combination with other solar farms. It is also welcomed that extreme weather events are addressed with regard to GHG emissions especially given the recent weather related impacts of Storm Darragh on the Porth Wen Solar Farm on Anglesey. The cumulative impact, including additional GHG emissions resulting from extreme weather damage also needs to be considered alongside other proposed NSIP-scale solar farms.

From a purely readable perspective it would be useful if Plate 6-1: Lifecycle stages of civil engineering works assessment (PAS 2080:2023) (Ref 6-13) could be provided immediately prior to Table 6-9 to enable the PAS 2080:2023 Module (work stages) to be viewed prior to reading the Table.

Chapter 7: Cultural Heritage

Built Heritage

Study area

The proposed wider study area is unlikely to capture the potential impacts on designated and non-designated built heritage assets (Scoping Report section 7.2.4). Comparable

schemes of this scale have opted for 5km radius for designated assets and 2km for non-designated assets to identify those receptors potentially impacted in terms of significance and setting. The Council recommend a minimum 5km study area for all above ground designated assets and a 2km study area for all above ground non-designated assets to ensure a comprehensive assessment in the ES.

Surrounding Settlements

The site is located in a triangle between Leadenhurst, Brant Broughton, and the Welbourn Conservation Area, the latter being within the broader vicinity of the scheme and potentially affected in its setting and experience. While Leadenhurst and Brant Broughton are not currently designated as conservation areas, their status is under review, and all three villages—Welbourn, Leadenhurst, and Brant Broughton—host a high concentration of designated and non-designated heritage assets. These include prominent listed churches such as the Grade I Church of St Helen in Brant Broughton, noted for its elegant spire, alongside the Church of St Chad in Welbourn and the Church of St Swithun in Leadenhurst, which are sensitive due to their height and prominence. The ES should thoroughly assess these assets and the Conservation Area, beyond limited visual analysis, to ensure that potential impacts on their settings and the historic landscape's coherence are adequately addressed.

Historic Landscape

The Lincoln Cliff (Area of Great Landscape Value (AGLV)) serves as a key vantage point from which the scheme may be experienced, potentially eroding the visual connectivity between settlements, historic churches, and the surrounding agricultural landscape. These relationships form a cohesive historic environment that could be significantly altered by large-scale solar infrastructure. The ES should use the Lincolnshire Landscape Character Report to inform their assessment of setting impacts. The shift from open fields to solar development has the potential to permanently alter the rural landscape character, and mitigation strategies should be developed in detail to address this.

Cumulative Impact

The current study area does not fully address cumulative impacts, particularly the connectivity of the open rural landscape and broader visual and experiential effects on heritage assets. This is notable given the proximity to Springwell Solar Farm and other proposed developments, alongside potential sequential visual impacts on historic landmarks. The ES should provide a detailed evaluation of these cumulative effects to ensure a robust understanding of the scheme's wider implications.

Historic Farmsteads

While the methodology for assessing heritage significance (Sections 7.7 -7.7.9) is a positive starting point, it does not fully consider the interrelationships and group value of historic farmsteads, which are widespread across the scheme and region. The current approach risks underestimating harm by assessing farmsteads in isolation rather than considering how their collective presence contributes to the historic environment. The ES should assess historic farmsteads as part of a wider historic landscape, considering their collective value and interrelationships rather than treating them as isolated assets. This should include an

analysis of how multiple farmsteads contribute to the area's agrarian history and setting, ensuring that their significance is not diminished by fragmented, individual assessments. This approach aligns with the Greater Lincolnshire Farmstead Framework, which recognises historic farmsteads as integral to the landscape's agricultural identity. The ES should ensure that the assessment considers both the individual and collective impact of development on farmsteads and their setting to avoid a reductionist approach that underrepresents their historical significance.

General Recommendations

While the scoping report provides a foundation for assessing heritage impacts, further work is required in the ES to ensure a robust and proportionate approach to the historic environment. The study area for built heritage should be expanded to provide a full understanding of the potential impact on designated and non-designated heritage assets, including the Welbourn Conservation Area, churches, historic farmsteads, and the wider historic landscape. The relationship between built heritage and its setting must be properly assessed, particularly where sequential views and landscape context contribute to their significance. The historic rural landscape of this area, which includes the Lincoln Cliff AGLV, is sensitive to large-scale change, and the ES must demonstrate how these elements will be considered in both assessment and mitigation. The Historic Character of the County of Lincolnshire Report, not mentioned in the scoping report, should be consulted to inform this process. Cumulative effects should also be fully explored, ensuring that the scheme's wider impact on the historic landscape is understood. The interrelationship of historic farmsteads must be assessed as part of a coherent historic landscape, avoiding an approach that isolates individual assets without recognising their collective contribution, and the Greater Lincolnshire Farmstead Assessment Framework, also not referenced in the scoping report, should be consulted. Given the complexity of heritage considerations in this scheme, agreeing with Lincolnshire County Council on the scope of built heritage included in the ES in advance would help avoid unnecessary points of difference later in the planning process and ensure emerging issues are addressed in a timely and coordinated manner.

Archaeology

The Council is pleased to see that archaeology will be scoped in as stated in section 7.6.8 and Table 7-3 and that it is acknowledged in section 5.4.2 that the effects of the scheme on archaeology will be permanent.

Regarding the requirements for archaeological work which will need to be completed before the DCO submission, the Council would expect the desk based evaluation to be complete and the field evaluation to be well underway by the time the PEIR is produced. The full standard suite of archaeological evaluation is required. It is vital that a competent full desk based assessment (DBA) be completed at the earliest opportunity as desk based work provides the basis for initial understanding. This is informed by and built upon by a full air photo/LiDAR assessment and geophysical survey which in turn assists in the development of the trial trenching programme.

Sufficient field evaluation is an essential aspect of effective project management, particularly as unevaluated areas of unknown archaeological potential leave a high degree

of risk to the development given the potential for archaeology to have significant impacts on work programmes and budgets. Failure to adequately evaluate the Site at the application stage could lead to unnecessary destruction of heritage assets, potential programme delays and excessive cost increases that could otherwise be avoided. There is no public benefit in the destruction of unknown unrecorded heritage assets.

Sufficient baseline information on the archaeology to be impacted across the site is required by NPPF, EIA Regulations and National Policy Statement EN-1² which at 5.8.10 states "*The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.*"

The Council also welcomes the iterative design process (paragraph 10.6). Archaeological evaluation including trenching results would allow the understanding of where areas of archaeological sensitivity survive across the Site and should be undertaken early enough for the results to inform the iterative process. This would allow for archaeological mitigation through informed design and is essential for effective risk management, providing an understanding of the extent of archaeological mitigation fieldwork required which can then be accommodated within the work programme.

Scoping Report – detailed archaeological comments

Section 2.2.2 states that '*Some of this land will also be used for landscaping and habitat creation rather than solar PV infrastructure.*' Landscaping and a range of habitat creation and ecological mitigation measures such as scrapes, pond and lake creation and soil inversion can detrimentally impact currently surviving archaeology. The Council need to understand the depths of disturbance and the depth of surviving archaeology across the site to know where these works would destroy archaeology.

Tree planting is also very destructive to underlying archaeological remains, the root structures of mature trees can be deep and cover areas several times the size of the tree canopy. The root structures can destroy surviving archaeological features, change soil chemistry and hydrology, there can be uprooting from storm damage and when a tree dies the roots whither and leave voids which collapse.

Sections 2.3.1 to 2.3.6 deal with the Rochdale Envelope. Where the developer proposes the Rochdale Envelope in dealing with their application, it is essential that an understanding of the archaeological resource is achieved to allow for informed and appropriate mitigation. This can only be achieved through adequate trenching evaluation of the full impact zone and the timely provision of the results to inform the baseline evidence and subsequent informed fit for purpose mitigation strategy. Ideally this should be in advance of the determination and certainly the results are needed in advance of the work programme commencing in any of the areas not currently adequately evaluated.

² National Policy Statement EN-1 <https://www.gov.uk/government/publications/overarching-national-policy-statement-for-energy-en-1>

This is in accordance with NSIPs Advice Note Nine³ Paragraph 5.2 states that ***'Implementation of the Rochdale Envelope assessment approach should only be used where it is necessary and should not be treated as a blanket opportunity to allow for insufficient detail in the assessment. Applicants should make every effort to finalise details applicable to the Proposed Development prior to submission of their DCO application. Indeed, as explained earlier in this Advice Note, it will be in all parties' interests for the Applicant to provide as much information as possible to inform the Pre-application consultation process.'***

Section 2.3.9 states that *'In areas around the PV arrays and on other land within the Solar PV Site, opportunities for landscaping, biodiversity enhancements and habitat management will be explored.'* As stated above, these works would destroy archaeology where it currently survives across the Site.

Section 2.3.14 states that *'Each string of modules will be mounted on a steel metal rack, known as a frame. The frames are usually supported by galvanised steel poles typically driven 1 m or up to 3 m into the ground...with tracker systems typically requiring deeper depth of pile between 2 m and 4 m.'* It would be helpful to have an approximate number of proposed piles. Mallard Pass for example is a similar size and during one of the hearings the Applicant stated there would be approximately half a million piles. Whilst acknowledging the intrinsic flexibility required for a solar NSIP, an understanding of the quantitative impacts would be extremely useful, such as the amount and layout of cabling required for a typical hectare or field of solar arrays, or the depths and size of drainage swales.

Section 2.4.16 states that *'The Framework LEMP will specify mitigation and enhancement measures that would support the BNG. A detailed Biodiversity and Landscape Management Plan will be produced following grant of the DCO and prior to the start of construction (for example, as part of a requirement attached to the DCO).'*

Evident in other NSIP submissions is a lack of interoperability in the assessment and understanding of the impacts, for example the heritage or archaeology chapter does not include reference to the impacts of proposed ecological mitigation measures or drainage strategies which would have extensive ground impacts to the archaeological horizon. The Council would therefore strongly encourage an integrated approach to undertaking assessments informed by an understanding of the range of impacts which would result from this proposed development, and that documents such as the LEMP inform the assessment chapters including cultural heritage.

Section 5.1.5 states that *'Where potentially significant adverse environmental effects are identified in the assessment process, measures to mitigate these effects will be put forward in the form of recommendations to be undertaken as part of the project development as far as practicable.'*

³ Nationally Significant Infrastructure Projects – Advice Note Nine: Rochdale Envelope [Nationally Significant Infrastructure Projects - Advice Note Nine: Rochdale Envelope - GOV.UK](#)

Mitigation is the stage of the EIA process when measures are identified to avoid, minimise or remedy impacts. Where adverse impacts are unavoidable and cannot be reduced further, compensation or remedial measures are the last resort. Good practice dictates that mitigation should be presented as clearly defined commitments, with the ES providing an assessment of the likely effectiveness of the mitigation proposed and any residual impacts remaining. The Council therefore seeks clarity on the phrase '*as far as practicable*'.

Section 7.2.2 states that '*An assessment of the buried components of the Scheme will be considered in the ES, although the final extent of the Study Area will be determined once the Grid Connection Corridor has been refined.*'

The Council would encourage archaeological evaluation to inform the selection process in determining the route. Sufficient evaluation is essential in informing the subsequent design and in ensuring the work programme is devised with an understanding of the level of archaeological mitigation work which may be required before and during the construction phase. Pre-determination evaluation of the grid connection corridor area can be very useful for informing a decision on the most cost effective and viable route and can allow for archaeological mitigation by iterative design.

Regarding guidance documents, the **Lincolnshire Archaeology Handbook (2024)**⁴ should be included which lays out the requirements for undertaking archaeological work in the County. Please refer to section 5.16: Guidance for large schemes including NSIPs and EIAs, General Scoping Opinion for the Historic Environment. **Historic England Advice Note 17: Planning and Archaeology**⁵ should also be included in the guidance documents.

Section 7.4.1 states that '*Consultation will be carried out with the Historic Environment Officer and Conservation Officer for LCC to ensure, as far as practicable, that cultural heritage issues are identified and potential impacts to cultural heritage assets are included in the assessment.*' The Council would welcome early engagement. Again, clarity is sought on the phrase '*as far as practicable*'.

The Council does not agree that findspots should be scoped out as proposed in section 7.5.2. The Roman pottery scatter findspots are presumably those included in section 7.5.17 and are indications of Roman activity nearby. In Lincolnshire, the Council require that the desk-based assessment should also include Portable Antiquities Scheme (PAS) data as finds can inform our understanding of archaeological potential. Please see the Lincolnshire Archaeological Handbook.

Section 7.6.1 states that '*There is potential for previously unrecorded archaeological finds, features and deposits to survive within the Site Boundary. These remains could potentially be affected during excavation works required during construction including, but not limited to, power control infrastructure and on-site cabling, the laying of the required connector cables and the establishment of a construction compounds and access tracks. The construction of the PV module mounting structures are direct piled into the ground and therefore do not*

⁴ Lincolnshire Archaeological Handbook (2024) [Archaeological handbook – Lincolnshire County Council](#)

⁵ Historic England Advice Note 17: Planning and Archaeology [HEAN 17 Planning and Archaeology](#)

require excavation, but they still have the potential to impact archaeological remains.' The Council is pleased that the impacts of piling are acknowledged. Please be advised that in accordance with Historic England's revised Piling and Archaeology guidance '***The applicant will need to provide sufficient information demonstrating an adequate understanding of the significance of the archaeological site and assessment of potential harm to that significance arising from the development.***' (Historic England, Piling and Archaeology guidance and good practice (revised 2019), p2)⁶

Information from other NSIP schemes shows that there will be other activities not listed in section 7.6.1 which can affect surviving archaeology including drainage, ecological mitigation measures and landscaping. Details of all potential impacts should be included in the assessment of archaeological impacts of this development.

It is noted that section 7.6.2 includes Medieval ridge and furrow earthworks which '*may be physically impacted by the Scheme.*' Earthwork restoration is essential and a standard mitigation measure. Full survey of any extant earthworks must be undertaken in advance of any groundworks whatsoever and the earthworks reinstated once groundworks are complete. Earthworks by their nature are very fragile and will be destroyed not just by flattening and plant movement but also by the spreading of spoil or any other works which would erase their legibility in the landscape. Such sites will need to be excluded from any such works and this should be included in the construction, operation and decommissioning management plans along with any other archaeological mitigation areas which would be affected.

For any preservation in situ areas the full extent of the archaeological areas must be determined and each area fenced off and subject to a programme of monitoring throughout the construction, operation and the decommissioning phases, with no ground disturbance whatsoever which may disturb or affect the archaeological remains including plant movement or storage. The fencing will need to remain in place and be maintained throughout the lifetime of the scheme including decommissioning and refits. There will need to be an Archaeological Clerk of Works and the management strategy for the preservation in situ areas must be included in all their management plans to ensure the protection measures stay in place throughout the development.

Section 7.7.12 states that '*The DBA, alongside the results of agreed evaluation surveys (see section 7.7.14 below), will confirm whether additional surveys are required to better determine the nature, extent and origin of archaeological remains within the construction footprint of the Scheme.*' Additional surveys are required when they are part of the standard suite of archaeological evaluation consisting of desk based work, geophysical survey and a robust trenching programme, and they are required to inform reasonable mitigation of the developmental impact. Policy, guidance and effective risk management dictate that appropriate levels of evaluation are undertaken pre-determination. This would allow mitigation through evolving design as part of the proportionate mitigation strategy across the impact zone to be determined pre-construction.

⁶ Historic England Piling and Archaeological Guidance and Good Practice (revised 2019) [Piling and Archaeology](#)

Section 7.7.14 states that '*The scope of geophysical survey will be agreed with the Historic Environment Officers for LCC and will be undertaken within areas of the Site Boundary that are suitable for survey and where land access can be obtained by way of landowner agreement.*'

Geophysical survey is essential as a prospecting technique for informing the trial trenching programme. For those areas where geophysical survey is not undertaken a greater density of evaluation trenching will be needed to determine the archaeological potential. This is essential for ensuring the EIA and the mitigation strategy are adequately informed across the redline boundary.

Regarding section 7.7.14 under Desk-based sources, these should include Portable Antiquities Scheme (PAS) data and map regression should include all available maps to provide a reasonable understanding of the development and time depth of the sites.

Section 7.7.15 states that '*Further archaeological evaluation may be undertaken....These additional surveys (if required) may include'*

- *Monitoring of geotechnical ground investigations to establish the geoarchaeological baseline conditions and to assess the potential for deposits containing palaeoenvironmental data to be present; and*
- *Archaeological trial trench evaluation to confirm the results of the geophysical survey, characterise the nature, extent and preservation level of archaeological remains in order to understand their heritage value, and to inform a suitable mitigation response.*

In response to the first point, the Council strongly recommend that a qualified geoarchaeologist be included in the geotechnical investigations. In response to the second point, as the document itself states they will establish baseline evidence and an understanding of the surviving archaeology across the redline boundary to inform adequate mitigation.

Geophysical survey and other remote survey techniques require evaluation trenching in order to determine the depth, extent, state of preservation and significance of archaeology and also to provide ground-truthing for so-called 'blank' areas where previous evaluation techniques have not identified archaeology. This is because there are types of archaeology that do not come up in desk-based assessments or geophysical survey such as burials, types of geology which may affect geophysical survey results, and later human activity such as Medieval ridge and furrow ploughing can mask earlier archaeological features. Significant areas of unexpected archaeology have been identified during the trenching phase of every other NSIP across Lincolnshire, for example a Saxon cemetery was found approximately 20cm from the current ground surface.

Regarding the use of the phrases in the scoping document and quoted above such as '*Further archaeological evaluation may be undertaken*' and '*These additional surveys (if required) may include....*' These surveys are required and should be undertaken when the results can inform the iterative design process. This is in accordance with the National Policy

Statement for Renewable Energy Infrastructure (EN-3) which states that '***The results of pre-determination archaeological evaluation inform the design of the scheme and related archaeological planning conditions.***' (footnote 94)⁷

Section 7.8.1 states that '*It is assumed that there will be access to all required land to undertake the walkover survey and any additional surveys that may be required to support the ES. In the event that access is not available a professional judgement and a precautionary principle approach will be adopted, based on available research and data, to assess the archaeological potential of the area.*'

In the event that no trenching can occur before the commencement of groundworks these areas will carry a very high level of risk which will need to be accommodated by incorporating flexibility in the work programme and budget. Any unevaluated areas will need to be subject to stronger archaeological mitigation as the potential hasn't been determined. It is therefore much preferred that sufficient field evaluation is undertaken across the full redline boundary to provide the essential baseline evidence to design a reasonable and appropriate mitigation strategy.

Please be advised that most of Lincolnshire is not suitable for trenching over the wet winter months so it is pragmatic to ensure there is sufficient time during those seasons where evaluation work particularly trenching can be effectively undertaken. Given the long lead-in time for this scheme however the Council would not anticipate that this would be an issue.

Section 8.8.2 states that '*It is currently assumed that should there be the requirement for the potential mitigation of ecological features and recommended enhancement measures, suitable on-site areas will be made available to deliver the required outcomes.*'

An understanding of the location and depth of significant archaeology across the redline boundary would inform this process, lessening developmental harm on the historic environment and building in the capacity for archaeological mitigation as part of the iterative design process.

Regarding Surface Water Drainage, section 2.3.52 states that '*The detailed operational drainage design will be carried out pre-construction with the objective of ensuring that drainage of the land to the present level is maintained. It will follow either the design of a new drainage system taking into account the proposed new infrastructure (access tracks, cable trenches, structure foundations) to be constructed, or, if during the construction of any of the infrastructure, there is any interruption to existing schemes of land drainage, then new sections of drainage will be constructed.*' Table 1. Leoda Solar Farm Environmental Mitigation and Commitments Register, ENC-26 Ecology and Nature Conservation makes reference to '*localised SuDS, such as swales and infiltration trenches*' and sustainable drainage systems (SuDS) is defined in this document as '*Surface water drainage systems developed in line with the ideals of sustainable development (e.g. swales, ponds, basins, filtration flow control, etc).*' (p384)

⁷ National Policy Statement for Renewable Energy Infrastructure (EN-3) [National Policy Statement for renewable energy infrastructure \(EN-3\)](#)

Drainage groundworks typically go below the depth of the archaeological horizon meaning they would damage or destroy any surviving archaeology. Details of the work will therefore need to be provided. Given these works will be carried out pre-construction, sufficient evaluation will need to be undertaken in advance of these works and any agreed archaeological mitigation will need to take place before any groundworks including that required for drainage.

Regarding Biodiversity and Landscaping, section 2.3.54 states there will be '*planting of seed mixes within the solar PV area*' and section 10.6.2 refers to '*new planting across the Site Boundary*.' Again sufficient detail will need to be provided to allow for an understanding of the potential impacts, for example soil inversion for wildflower planting and the depth and extent of ecological mitigation measures such as scrapes, ponds and wetland creation. This is necessary so that the impacts upon any surviving archaeology may be understood and so that proportionate mitigation of the impacts can be agreed with respect to areas of archaeological sensitivity.

Historic England Advice Note 17: Planning and Archaeology⁸ states that '*Appropriate evaluation can support the smooth and speedy progression of the development and help to manage the developer's risk early in the planning process*' (section 131). It also states that '*Data gathered can also help to inform a costed mitigation strategy, the benefits of which include a reduction in the chances of unexpected risks and associated costs, and potentially the scope to allocate the cost of archaeology appropriately into financial forecasts*' (section 132).

The Council would also expect a scheme of this size to include a reasonable degree of community engagement and public outreach.

In summary, the EIA will require the full suite of comprehensive desk-based research, non-intrusive surveys, and intrusive field evaluation by trenching for the full extent of proposed impact. The results should be used to minimise the impact on the historic environment through informing the project design and to provide the basis for a fit for purpose site-specific mitigation strategy to adequately deal with the impacts of this development upon currently surviving archaeology.

The provision of sufficient baseline information to identify and assess the impact on known and potential heritage assets is essential. Overarching National Policy Statement for Energy (EN-1)⁹ outlines requirements for understanding the significance of heritage assets that will be affected, including 5.9.12: '*The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.*' (Section 5.9.9-5.9.15)

⁸ Planning and Archaeology Historic England Advice Note 17 (HEAN 17) [HEAN 17 Planning and Archaeology](#)

⁹ Overarching National Policy Statement for energy (EN-1) [Overarching National Policy Statement for energy \(EN-1\) - GOV.UK](#)

Chapter 8: Ecology and Nature Conservation

Section 8 of the EIA Scoping Report discusses the Applicant's approach to Ecology and Nature Conservation. Having reviewed this and other sections of the report relevant to ecology and biodiversity, subject to the comments below, Lincolnshire County Council supports the approach to the assessment of ecological impacts.

Study area

The Scoping Report proposes a 10km study area for internationally important statutorily designated sites, 5km for nationally important statutorily designated sites and a 2km study area for non-statutory designated sites and protected species records. Appropriate extensions are made to these distances where statutorily designated sites' features include mobile species such as wintering birds or bats. Consideration is also given to hydrological connectivity with European sites. The Council considers the proposed study area to be appropriate to the project's Zone of Influence.

Current baseline

There are no internationally important designated sites within 30km of the proposed development identified in Figure 8-1. The Council agrees with the Applicant's assertion that impacts on internationally important sites are unlikely; however, Natural England should be consulted in relation to the requirement for a Habitats Regulation Assessments for internationally important designated sites.

There is one nationally designated statutory site (SSSI) and a series of non-statutory designated sites identified within 5km and 2km respectively in Figures 8-1 and 8-2. The ES will need to assess the potential for impacts on these sites.

Limited information is presented in the Scoping Report on the habitats and species currently present on site. Desk based studies and initial walkover surveys have indicated the likely presence of a range of habitats and species within the study area. Surveys to establish the precise locations of these habitats and presence / absence of species will be required to identify any impacts, to inform mitigation and enhancement opportunities and to undertake a Biodiversity Net Gain (BNG) assessment.

Scope of the assessment

A list of potential ecological receptors scoped in or out of the assessment is presented in Table 8-7. Subject to the comments below in relation to the scope of ecological surveys, the Council agrees with this list.

The Council also agrees with the list of both direct and indirect effects identified during construction, operation and maintenance and decommissioning phases of the development set out at 8.6 in the Scoping Report.

Assessment methodology

Table 8-3 sets out the suite of ecological surveys that will be undertaken in support of the application. LCC considers that the list of surveys is broadly appropriate. Specific comments in relation to the planned surveys are as follows:

- All ecological surveys should follow industry standard guidance.
- The Council will expect to see a plan identifying where any TPO, veteran and ancient trees/woodlands are located within the site and showing that consideration has been given to suitable working distances within proximity to trees. The Council advises that ancient woodland data for the county has recently been updated by the Greater Lincolnshire Nature Partnership. The Applicant may already have access to this data but should ensure that the most up to date information is being used to assess impacts including from field surveys commissioned in support of the application.

In addition to this, the AWI generally omits woodlands smaller than 2ha. Therefore, The Applicant should ensure that all woodlands in the zone of influence have been suitably assessed during field surveys to clarify the presence / absence of potential ancient woodland.

- Botanical surveys should be appropriately timed and targeted to detect the presence of populations of scarce arable flora within the survey area.
- Breeding bird surveys should be designed to ensure that species whose breeding activity may not necessarily be encompassed within the scope of a standard breeding bird survey (e.g. due to the timing of their breeding activity) are accurately recorded. Relevant species will include but may not be limited to barn owl and quail.

Cumulative Assessment

This development is one of several proposed and large NSIP solar schemes within the county. Therefore, the combined implications for habitat loss, land-use change, and associated impacts on species, particularly for species groups such as farmland birds, will need careful consideration in the assessment.

Habitats Regulations Assessment

If the potential for impacts on statutorily designated sites is identified, the Applicant will need to provide the information reasonably required for a Habitats Regulations Assessment. The Planning Inspectorate will need to undertake a Habitats Regulations Assessment and satisfy itself that sufficient information has been submitted by the Applicant to enable this to be completed.

Approach to Biodiversity Net Gain

The Council welcomes the Applicant's intention set out at 8.6.5 to deliver a minimum of 10% BNG. Given the scale and nature of the Proposed Development, LCC expects that the project will be able to deliver significantly in excess of 10% BNG.

A BNG assessment should be undertaken using the Statutory Biodiversity Metric. Proposals for habitat enhancement within the Habitat Management and Monitoring Plan should be realistic and demonstrate meaningful biodiversity gain over and above any mitigation measures proposed. Details and locations of proposed enhancements and associated management should be provided at PEIR stage. Commitments to deliver BNG will need to be

secured in the DCO and the Applicant will need to demonstrate that the commitments made to delivering BNG are achievable.

The Council encourages the Applicant to work with other developers and stakeholders in the area to identify opportunities to deliver BNG strategically including by keeping up to date with emerging local strategies such as the Greater Lincolnshire Local Nature Recovery Strategy.

The Council's Infrastructure Ecologist will be happy to work with the Applicant, their consultants and other stakeholders throughout the EIA process to ensure that ecological elements of the application are properly addressed, and that the scheme secures the maximum potential benefits for biodiversity.

Chapter 9: Water Environment

The Report states that an FRA and surface water drainage strategy will be prepared and that in the preparation of these documents there will be further consultation with the Council. As such the Council has no further comment at this stage.

Chapter 10: Landscape and Visual Amenity

This review has been carried out by AAH Consultants on behalf of the Council and relates to landscape and visual issues and elements only. It is based upon a review of the relevant sections of the Leoda Solar Farm; Scoping Report; January 2025.

As part of the submission, the Council would expect the production of a Landscape and Visual chapter of the ES, which would be in the form of a Landscape and Visual Impact Assessment (LVIA), and any supporting information (such as plans or figures) reflect current best practice and guidance from, as a minimum, the following sources:

- ‘Guidelines for Landscape and Visual Impact Assessment’, (GLVIA3), April 2013 by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA);
- ‘An Approach to Landscape Character Assessment’, Natural England (2014);
- ‘Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals’, 17th September 2019 by the Landscape Institute (LI);
- ‘Technical Guidance Note (TGN) 1/20 Reviewing Landscape and Visual Impact Assessments (LVIAAs) and Landscape and Visual Appraisals (LVAs)’, 10th January 2020 by the Landscape Institute (LI);
- ‘Technical Guidance Note (TGN) 04/20 Infrastructure’, April 2020 by the Landscape Institute (LI); and
- ‘Technical Guidance Note (TGN) 2/21 Assessing landscape value outside national designations’, May 2021 by the Landscape Institute (LI); and
- ‘Technical Guidance Note (LITGN) 2024-01 Notes and Clarifications on Guidelines for the Landscape and Visual Impact Assessment Third Addition (GLVIA3)’, August 2024 by the Landscape Institute (LI).

Overall, it would be expected that the assessment of potential Landscape and Visual matters and evolving proposals relating to Leoda Solar Farm, as a Nationally Significant Infrastructure Project (NSIP), follow an iterative process of engagement and consultation to ensure the following are not fixed at this stage and are discussed, developed and agreed at subsequent technical meetings with the applicant:

- LVIA Methodology;
- Development, and subsequent Zone of Theoretical Visibility (ZTV), parameters;
- Study Area extents (distance);
- Viewpoint quantity and locations;
- Photomontage/Accurate Visual Representations (AVRs):
 - Quantity and location;
 - Phase depiction;
 - AVR Type and Level.
- Mitigation Measures/Landscape Scheme/Site Layout;
- Cumulative effects, including surrounding developments to be considered; and
- The extent as to which a Residential Visual Amenity Assessment (RVAA) should be considered (based on the Landscape Institute TGN 2/19) if there are residential properties with receptors likely to experience significant effects to their visual amenity.

While the focus of this review is on Landscape and Visual matters, other information provided within the Scoping Report, and associated Appendices and figures, has also been considered, providing background and context to the Site. At this initial stage of the NSIP/DCO process, the content and level of information provided by the developer within Section 10. Landscape and Visual Amenity is generally considered satisfactory with the sources listed above covered, however, as stated previously, the Council would expect to discuss this content and approach as part of the iterative process. Due to the scale and extent of the Site and proposed development, the Council would expect there to be adverse landscape and visual effects.

The following should be considered in the evolving assessment and layout:

(a) Viewpoints

The final locations of viewpoints are to be reviewed and agreed with LCC, North Kesteven District Council (NKDC) and other relevant stakeholders. The final viewpoint selection should also consider views of taller and more conspicuous elements, such as battery storage or sub-stations once the layout is more developed, as well as consider potential key, or sensitive, viewpoints. The Council would welcome an initial discussion and subsequent workshop (on site if appropriate) with the developer's team in regard to proposed viewpoints. Following this, LCC would visit the Site and study area to review the proposed viewpoints and provide detailed feedback to the applicant. Specifically, the non-statutory comments from North Kesteven District Council (dated 5th February 2025) identifies several locations in addition to those listed in the Scoping Report. Viewpoints are considered further under the **Visual** section of this response.

(b) Photomontages

To gain an understanding of the visibility of the development and how the panels and infrastructure would appear in the surrounding landscape, Photomontages/AVRs should be produced. The number and location of the agreed viewpoints to be developed as Photomontages/AVRs should be agreed with LCC/NKDC and other relevant stakeholders and produced in accordance with TGN 06/19 Visual Representation of Development Proposals.

At this stage, it is deemed appropriate that these should be produced to illustrate the proposals at different phases: Existing Situation (baseline), Operational (year 1) and Residual with planting established (10 to 15 years). The Photomontage/AVR Level and Type is to be discussed and agreed.

(c) Methodology

As stated previously, the LVIA Chapter should be carried out in accordance with the GLVIA3 and undertaken by suitably qualified personnel (the Council would expect these to be Chartered Members of the Landscape Institute (CMLI)). The methodology provided at Section 10.7 is typical of those used for ES Chapters and standalone LVIA where potential significant effects are considered and reflects the guidance in GLVIA3. The Council would request that the most up to date technical guidance be used and a detailed methodology is provided to allow for further interrogation at the next phases of the project.

The Scoping Report states that a “Significant” effect (which would predominantly be Moderate and above) will be evaluated as follows: Effects that are Minor or Negligible will not be deemed “Significant”. Effects that are Moderate may be “Significant” but only with reasoned justification. Effects that are Substantial or Major will be deemed “Significant”. This approach to assessment is appropriate but would be discussed further and agreed once a detailed methodology has been provided.

The methodology should also clearly lay out the process of assessing temporary and permanent elements of the scheme, and the LVIA should clearly identify those elements that would not be decommissioned at the end of the life of the development and assessed accordingly.

(d) Scope of the Study Area:

It is acknowledged in Section 10.2.4 that an initial Study Area covering 5 km from the Solar PV Site boundary and 1 Km from the Grid Connection Corridor has been allowed for the proposed development. At this early stage, the Council recommend these extents are discussed and further reviewed as the full extent of potential visibility of the development is not yet fully known. ZTV mapping within Appendix 10.1 identifies potential visibility beyond these extents. The ZTV mapping would be updated once the proposals have developed (as stated within paragraph 10.2.5) and the study area should not be fixed until the full extents of visibility are known from both desktop and site work.

Once the study area has been defined, the LVIA should also provide a justification for the full extent/distance, which would be further refined as part of the iterative process.

(e) Landscape

Published landscape character areas have been identified including Natural England's National Character Areas (NCA 47: Southern Lincolnshire Edge and NCA48: The Trent and Belvoir Vales) and regional studies including the North Kesteven Landscape Character Assessment, however to align with GLVIA, the LVIA should include an assessment of landscape effects at a wide range of scales down to Site level, and will need to include a finer grain landscape assessment of the Site and immediate area. This assessment will consider individual landscape elements and site-specific features that make up the Site and its local character area.

The non statutory comments from NKDC highlight the prevalence of designated and non-designated heritage assets in the vicinity of the Site including Leadenham, Brant Broughton and Welbourn Conservation Areas and Grade 1 listed church spires including St Helens and St Chads. Additionally, attention is drawn to the Lincoln Cliff Area of Great Landscape Value (AGLV) and the amenity enjoyed from PROW along this elevated landscape feature. The Scoping Report mentions the long-distance trail 'The Viking Way' with NKDC identifying other important trails including the Ridge and Furrows Arts and Heritage Trail between Sleaford and North Hykenham. Landscape character effects to the AGLV are a particular concern, and the development has the potential to have significant adverse effects on this sensitive receptor.

Finally, the Site is within the Central Lincolnshire Biodiversity Opportunity Area which is promoted for habitat creation and eco networks specifically 'wetland' creation. Existing landscape habitat and will need to be protected and extended where possible. Consequently, there is a need to further clarify the range of potential landscape receptors to be considered, however at this early stage of the project, the Council would request these be reviewed and consulted upon further once proposals have been developed and the Council are in a position to confirm their inclusion or omission.

(f) Visual

The Council request that the visual assessment should identify and focus on visual receptors, with recent LI guidance (LITGN 2024-01) clarifying that the "focus of the visual assessment should be the visual receptors", and that viewpoints are for the "illustration of the visual effects".

The Scoping Report has identified 17 No. Viewpoints (A-Q) which includes views from some PROW, edge of settlements, road edges and farmland locations. NKDC in their non statutory comments have also suggested additional viewpoints. Many of these are located adjacent to those proposed in the Scoping Report, but there are variances and additional locations. For example, NKDC non-statutory comments suggest viewpoint locations near Southbarn Farm and on Welbourn Low fields that are not identified in the Scoping Report.

The Council would expect that the visual assessment would include for the collaborative identification of visual receptors and viewpoints and should clearly cross reference these viewpoints to their associated receptors. At this early stage of the project, the Council request any visual receptors be reviewed and consulted upon further once proposals have

been developed. The Council are not in a position at this stage to confirm their inclusion or omission.

Additionally, the NKDC Landscape Character Assessment describes: "The Views from the (Lincoln) cliff present possibly the most important vistas within the district" and it will be essential to ensure that viewpoints from this feature are agreed by all parties. The combination of an open agricultural landscape adjacent to the rising land of the Lincoln Cliff results in numerous sensitive landscape and visual receptors, with the development being particularly conspicuous in views from receptors within the rising land of the Lincoln Cliff, which include settlements and PROW (which will likely be receptors of high sensitivity). The overall context also presents difficulty in effectively mitigating the scheme, with extensive elevated views looking down onto the Site, which even with extensive planting or ground modelling (e.g. bunding) would only likely partially screen.

The visual assessment should take account of the 'worst case scenario' in terms of winter views, and effects associated with landscape mitigation at the Operational Phase (year 1), Residual Phase with planting having established (10 to 15 years), and at the Decommissioning Phase.

The LVIA should ensure all elements associated with the development are considered and assessed, such as supporting infrastructure including inverters, transformers, switchgear, battery storage (BESS), sub-stations, welfare facilities, security equipment including CCTV poles and boundary fencing, which may be more visible than panels due to height, mass and extent.

(g) Cumulative impacts

Cumulative Landscape and Visual effects should be assessed in regard to other major developments, and in particular other NSIP projects and long and short list TCPA projects. The Scoping Report mentions the 'Future Baseline' in Section 10.5.22 and acknowledges that 'Cumulative landscape and visual effects may also arise' in Section 10.6.4 but does not name any proposals or further projects that may be of relevance. Navenby sub-station and the A46 Newark Bypass are projects of possible relevance, and other proposed solar and BESS projects will need to be considered depending on their proximity and scale. Proposals with potential cumulative impact will need to be identified, reviewed and agreed with the Council, NKDC, and other relevant stakeholders as part of the iterative process. It is important that both landscape and visual effects are considered alongside any identified cumulative schemes, and both sequential and combined cumulative views are considered, as together these schemes will add considerable areas of energy infrastructure into an area that is currently characterised by open, large-scale agriculture.

The Council would recommend ZTVs of the identified cumulative schemes are utilised to clarify potential cumulative visual effects, and this may identify additional viewpoints to capture combined views (it is anticipated there may be cumulative views both In combination and In succession). The Council would also expect that sequential cumulative views would be evident for users of PROW and roads in the local area. These regular views of energy infrastructure have the potential to make visual receptors with views of the solar

scheme more susceptible to changes in the view and subsequently more sensitive through the perception of being within an “energy landscape” as opposed to an agricultural landscape.

(h) Mitigation and Layout

At this stage, as this is an iterative process, it is not relevant to comment on any potential mitigation or layout of the development. However, best practice guidance, relevant published landscape character assessments and District and County Council policy shall be referred to and implemented as appropriate.

The Council would also expect the landscape and planting scheme is coordinated with other relevant disciplines, such as ecology, heritage or civils (e.g. SuDS features) (please see archaeology comments in Section 7 above), to improve the value of the landscape and reflect appropriate local and regional aims and objectives. Any Landscape Scheme and associated Outline Landscape and Ecological Management Plan should accompany the ES which should cover in detail, as a minimum, the establishment period, which is assumed would be up to 15 years to cover the period up to the residual assessment. The management plan should provide for both new planting and existing retained vegetation and how it will be managed and protected through all phases of the development.

Chapter 11: Noise and Vibration

The Council will defer to NKDC and their Environmental Health team on the scope and methodology for this element of the ES.

Chapter 12: Socio-Economics and Land Use

Local Planning Policy, Other Policy and Guidance

12.3.2 Bullet point 4 states that with regard to the Lincolnshire Mineral and Waste Local Plan (2016) there are no allocated sites within the Solar PV Site boundary. This document is currently under review, and as such any emerging local plan document should also be considered. There are preferred mineral sites within the vicinity of the project and as noted in 12.5.23 the grid corridor falls within a Limestone Minerals Safeguarding Area.

Details of the project’s proposed construction and operational workforces should be considered, including an indication with regard to the split between direct and indirect opportunities for positions with contractors and suppliers.

Information on what the proportion of the total investment in construction will be contracted locally and whether there be any local weighting criteria when considering tenders needs to be provided. This may also help inform other studies such as the cumulative impact of traffic and travel.

Table 12-2 Scopes out Minerals Safeguarding the Grid Connection Corridor which runs through a Mineral Safeguarding Area (MSA) for limestone on the basis that land take for the installation of the grid connection would be very limited. The main purpose of the MSA is to protect a mineral resource for the long term for future generations. It should also be borne

in mind that just because there may be no economic need for the minerals now that may not be the case in the future. The Lincolnshire Minerals and Waste Local Plan (2016)¹⁰ has defined Minerals Consultation Areas (MCA) to coincide with the extent of the resources within the Mineral Safeguarding Areas. Please note Minerals Consultation Areas also include mineral sites and associated infrastructure safeguarded by Policy M12. Applications for non-minerals development should be accompanied by a Minerals Assessment which includes an assessment of both the safeguarded resource and safeguarded mineral sites and associated infrastructure, in accordance with the latest guidance from the British Geological Survey, and as such this cannot be scoped out until a Minerals Assessment has been produced.

Chapter 13: Traffic and Movement

The Council as Highway Authority will be seeking to ensure the traffic impact is acceptable with regards to highway capacity and safety and promotion of sustainable modes in line with National Planning Policy. The Report states that a TA will be prepared and that in the preparation of these documents there will be further consultation with the Council. The Council is pleased to see the proposed scope follows standard guidance and as has no further comment at this stage.

The Council would like to highlight that the other NSIP schemes within the locality, as referred to above under cumulative impacts will need to be included in any transport cumulative assessment.

Public Rights of Way

The area is host to a number of public footpaths and unsurfaced roads. There are also currently unproven but claimed public rights of way in the area. Please see the attached map at Appendix 1. All these should be scoped in for the purposes of the EIA.

The network north of the Welbourn to Brant Broughton road was extensively rationalised in the 1990s, but elsewhere the paths are broadly as mapped in the 1950s with a history arguably adding to their enjoyment for some.

The paths affected by the proposal are promoted on the Welbourn parish Stepping Out Walk, North Kesteven. The area of the proposed development would be overlooked by the promoted Welbourn Village and Ridge Stepping Out Walk, by any other users of the popular and elevated Footpath No. 848 along the former railway embankment past the village and have a significant impact on the view of the area from the cliff road.

A majority of the paths affected by the proposal are all/mostly regarded by the Council as Priority 2 in recognition of their use level and perceived community value.

There are no anomalies, aside from those subject to the above claims to recognise rights of way, to seek the resolution of through the planning process, however any opportunity to enhance the network with further linkages between Lemon Wong Lane, Leadenham 3 and

¹⁰ Lincolnshire Minerals and Waste Local Plan (2016);

<https://www.lincolnshire.gov.uk/downloads/file/2361/core-strategy-and-development-management-policies>

Welbourn 19 should be seized upon to develop further circular network connectivity. Details of suggested improvements are listed below.

The comments from a definitive mapping perspective are as follows:

- Seek the dedication of a public bridleway along Lemon Wong Lane and the branch leading to the A17 in Leadenham that are subject to DMMO Application 825 for claimed bridleways. This could provide a replacement for Leadenham PF 3 should it be proposed to be wholly or partially stopped up or extinguished.
- Seek dedication of a public bridleway between the above route and Newark Road in Leadenham that is subject to DMMO Application 823 for a claimed footpath.
- Seek the extinguishment of any public rights along the south sides of Newark Road and the A17 in Leadenham that are subject to DMMO Application 822 for claimed footpaths.
- Seek extinguishment of any public rights along the north and south sides of Lemon Wong Lane in Leadenham that are subject to DMMO Application 825 for claimed footpaths.
- Seek dedication of a short footpath link over the disused railway between Welbourn PFs 15 and 16 - this is marked in our anomalies layer as a missing link.
- Seek dedication of a link between Welbourn PF 19 and Leadenham PF 3 or Lemon Wong Lane to provide off road link between the PROW network in Welbourn and Leadenham Parishes.
- Link dedication of a footpath linking the dead-end routes of Navenby PF 14 and Wellingore PF 3.

It is difficult to identify from the map in the consultation brochure the exact extent of the solar farm. Some of the above may not be achievable if they fall wholly or partially outside of the extent of the proposed scheme, but if any of the routes were to be dedicated then it would enhance the PROW network in the area.

Chapter 14: Soils and Agricultural Land

Cable Route

EN3- para 2.10.39 states that applications should include the full extent of the access routes necessary for operation and maintenance and an assessment of their effects. It is noted that the Scoping Report states that '*The majority of disturbance of soil resources will occur within the construction phase. This will be largely restricted to Grid Connection Corridor and the substations and interconnecting cables and within the Solar PV Site.*' It is noted however that the Scoping Report also states that the Grid Connection Corridor will only be assessed using secondary data without carrying out surveys, as the works in this area are temporary and it is claimed this would not change the ALC or prevent farming following cable installation. This approach does not address land drainage issues. Land drainage is a key factor in assessing both land classification and the impact on land restoration particularly along any cable or grid connection route where trenches are dug or soils stripped, even temporarily. As such the impact of construction on land drainage and its effect on ALC needs be included in Table 14-4 under 'Soil Resource Quality – Construction and Operation', as

well as Scoping in Decommissioning and including this issue in the ‘Soil resource quality – Decommissioning.’

The route passes across and will be buried under mainly open countryside that is largely arable farmland. The soil management plan should also consider the cable route in order to minimise the impact on soil structure, land drainage and ultimately soil quality. Guidance is available in published documents.

Two key groups of impacts have been identified elsewhere for the purpose of defining receptor sensitivity and impact magnitude both of which should be considered in the ES:

- Land use and tenure: these are the potential impacts on human activity, including landowners, occupiers, local communities and other land users
- Agriculture: these are potential impacts on the soil resource, the surrounding environment and the agricultural productivity of the land.

Soils and Structure

The soils are described as slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils. Landcover is identified as principally grassland and arable with some woodland.

Soil structure can be significantly damaged during the construction phase of the process. There is 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. As such this should be considered as part of the EIA.

Decommissioning

The Scoping Report at 14.7.1 states *‘The impacts to soils and agricultural land would be assessed for the construction and operational phases of the development. As set out in Chapter 2: The Scheme, decommissioning impacts are expected to be similar to, or of a lesser magnitude than, construction effects. Therefore, decommissioning effects will be considered to be the same as construction phase effects and will be scoped out of specific assessment within the ES.’* Given the uncertainty that a 40+ year timeframe presents, the scoping out of decommissioning may be premature.

It is noted that the main body of the report with reference to Agriculture and Soils is set out in Table 14-4 Elements Scoped in and out of the assessment of soils and agricultural land. It is noted that Agricultural Land and Soils is Scoped In for Construction and Operation, however at present there is no settled consensus as to whether a long term temporary use of land should be considered as not significant and therefore the loss of any BMV over the 20 hectare threshold may still be significant.

Agricultural Land Classification and Soils

Paragraph 14.4.3 confirms that the site has only been preliminarily appraised for ALC and states *‘The 1:250,000 scale Provisional ALC mapping, which is available via the*

Government's geographic information website, Magic.gov.uk (Ref 14-7), is the most current and detailed published ALC data covering the whole of the Study Area. However, it is important to note that these data pre-date the revised ALC methodology issued in 1988 (Ref 14-8) and as a result, the data do not differentiate between ALC Subgrades 3a (BMV) and 3b (non-BMV). Additionally, the scale of the mapping is such that it does not pick up variations in ALC grade for areas less than approximately 80 ha. The Provisional ALC mapping therefore provides an indication of the land quality in the Region, but the extent and distribution of BMV agricultural land within the Study Area cannot be defined from the Provisional mapping alone.'

The soil augering of the site should be undertaken in line with TIN 049 and the MAFF 1988 Guidelines, one auger point per hectare and with occasional soil pits particularly where soil types vary. On a site of this size the amount of augering should be around 900+ auger holes and circa 6 or 8 pits to verify the soil profiles, with more required if there are significantly different soils.

It is noted that in paragraph 14.3.1 '*Schedule 4, Part (y) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (Ref 14-1) requires that Natural England be consulted if the area of a proposed permanent development exceeds 20 ha of BMV land.*' On the initial assessment it appears inevitable that Natural England will have an input to the ALC approach.

Cumulative ALC Impacts

There are a number of small(er) and largescale solar PV schemes in Lincolnshire, with others planned or proposed with most of the proposed solar sites on farmland. The situation is fluid as new proposals come forwards. Lincolnshire in particular has substantial areas of agricultural land, including a significant amount of land within the Best and Most Versatile category of which 46% is Grade 1 and 2, and 52% Grade 3 (the split between Grade 3a and 3b is unknown). Only 1% of land in Lincolnshire is Grade 4 with no Grade 5 land recorded.

District and County ALC: For a project of this scale there will be an impact, with the project will occupying the land for many years. The area of the solar farm is large on a local basis and if the quantities of BMV are similar to other NSIP sites, then the impact will be reasonably large and it is expected that the impact to be significant at a District or County Level.

Ecological Effect

If the land is used for biodiversity, it would not be available for agriculture. However even if it is available for some form of cutting or grazing it is unlikely that the ALC grade will change significantly during the life of the project. There is evidence that organic matter builds up in biodiversity areas at a faster rate than arable farmland and this may benefit the land, but it is not a factor in the assessment of ALC.

Long term, where biodiverse land becomes ecologically important there is the possibility of this land becoming assigned with environmental designations, such as SSSI status, though generally this has not so far occurred on other solar sites.

Chapter 15: Materials and Waste

The Council welcomes references to complying with waste legislation, to following the waste hierarchy and to considering transportation of waste (in the relevant separate section of the EIA in their assessments. In terms of specifics:

Expansive Study Area

Paragraph 15.2.5 – The study area for non-hazardous and inert waste management is set as East Midlands. Given the reference to the proximity principle, please could it be clarified why the region has been referenced rather than Lincolnshire?

Paragraph 15.2.6/7 – The study area for hazardous waste management is set as England. Although it would be good to see proximity (such as the East Midlands) utilised, the national level is acceptable.

A thorough assessment of the county's waste disposal needs is required to be undertaken in the context of achieving self-sufficiency, proximity principle and the waste management hierarchy set out in the current adopted Minerals and Waste Local Plan¹¹.

Safeguarded Mineral and Waste Sites

Paragraph 15.5.11 states that in accordance with the IEMA Guidance Minerals Safeguarding Areas are not considered to be a safeguarded mineral site (Site Specific Mineral Safeguarding Areas), and that this is scoped out in Chapter 12 Socio-economics and Land Use. Comments have been provided in Chapter 12 above.

The proximity of two sewage treatment works (AW154 & AW155) immediately adjacent to the Leoda Solar Farm red line boundary needs to be acknowledged and impacts considered.

Construction waste is key consideration in relation to NSIPs and indeed the assessment of effects through the EIA process. 15.5.18 of the Scoping report states they seem to have assessed based on current landfill void across the East Midlands '*For non-hazardous waste, using the current rate of decline of landfill capacity and forecasting into the future would lead to the inevitable conclusion that there would be no void space remaining. However, this is not a credible scenario as if there is still a need for landfill, then the WPA will need to consent new landfill capacity to replace that which has been used up. Therefore, non-hazardous and hazardous landfill capacity is assumed to remain the same as the current baseline, as outlined in Table 15-4.*' In paragraph 15.7.11 however it is stated that the worst-case scenario being considered is that landfill capacity is assumed to remain the same, but a very considerable reduction in capacity cannot be excluded. This should therefore be considered in the EIA assessment, especially given the proliferation of solar farms arising in Lincolnshire and both the need to accommodate panel failure during the operational phase as well as future decommissioning. The Waste Needs Assessment states that existing landfill capacity currently exceeds predicted arisings in Lincolnshire, therefore the Council requests that in their consideration of this matter the applicant considers the national and sub

¹¹ Lincolnshire Minerals and Waste Local Plan (June 2016) [Lincolnshire Minerals and Waste Local Plan](#)

regional picture from the latest Waste Data Interrogator as this is the most up to date information.

Chapter 16: Other Environmental Topics

Human Health

It is pleasing to see reference to and consideration of local health profiles in comparison to those of larger geographies in the EIA Scoping Report. It is, however, disappointing that the Scoping Report rules out a Human Health chapter. Whilst some aspects are covered in individual chapters such as air quality, noise, landscape, visuals, and glint and glare, this does not fully address all possible adverse physical and mental health risks and concerns. Public Health would like to see a mental health impact assessment for example. Completing a more comprehensive health impact assessment (HIA) with public involvement would help alleviate the concern of locals. It would also maximise the positive improvements that could be designed into the development. Public Health would therefore still wish to see either this part of the EIA strengthened or a standalone HIA. A strengthened EIA or HIA should cover:

- Likely and potentially significant issues associated with the proposed development based on a preliminary judgment of significance. It should be ensured that any significant health effects identified are brought together in one place.
- Potential health impacts associated with electromagnetic fields around substations, powerlines, and cables. It needs to be demonstrated that potential actual exposure to radiation (which includes electromagnetic fields) will comply with exposure limits developed by the International Commission on Non–Ionizing Radiation Protection. The substation for connection to the National Grid also needs to be considered. It is noted the Scoping document states that there will be no exceedances of 400kV from underground cables due to cumulative effects with this project.
- Scope for significant adverse visual effects resulting from the introduction of solar panels and associated infrastructure. The Landscape and Visual chapter should ensure that both the potential effects on mental health and wellbeing because of any reduction in landscape amenity and the potential sense of enclosure are specifically referenced, and that this includes reference to how potential impacts across the range of identified sensitive receptors could change over time and during worst case periods.

Major Accidents or Disasters

It is noted the scoping document makes reference to the Framework Battery Safety Management Plan, and as such scopes out fire risks relating to battery storage element of the scheme (Table 16-4). With limited details at this stage, the Lincolnshire Fire and Rescue Service (LFRS) would need to see the proposals within the safety plan to allow consideration of the details in the context of the development. The LFRS would be looking to ensure that minimum standards as outlined in the NFCC guidance is being adhered to, with specific details required. Please see advice letter at Appendix 2.

Glint and Glare

Currently according to the Scoping Report section 2.3, the type of Solar PV modules and their arrangement is currently undecided with reference variously made to monofacial and bifacial, fixed or single access tracker, number of strings and number and arrangement of modules in each string. Given this uncertainty of design, the need to assess the glint and glare is necessary taking into account the worst case scenario. From an aviation safety aspect, there are several operational RAF bases which operate within the area including RAF Cranwell, RAF Barkston Heath, RAF Waddington, and RAF Coningsby. In addition the solar PV panels will be visible from highways on higher land, mostly to the east and north. It is noted that the scoping report seeks to address glint and glare in the ES under the LVIA chapter and presented as a technical appendix. At this stage, as there is not sufficient evidence available, it is recommended that a glint and glare study is produced to assess the likely effects on visual impact.

If it remains that no specific Human Health chapter is provided, Public Health requests that there are clear references / paragraphs on human health in other relevant chapters of the EIA to make it easier to appreciate the implications. This should also include positive impacts such as to health from walking associated with improvements to the footpath network.

Chapter 18 – Summary and Conclusions

Chapter 18 contains a table summarising the elements to be potentially scoped in and out of the ES. Please find below a summary of the Council's comments against items in Table 18-1 and 18-2 where reference is made to aspects to be scoped out, where the Council would wish these items to be scoped in. The detailed comments on the Council's reasoning is found within the body of this letter.

Table 18-1

- Cultural Heritage – Findspots should be scoped IN. Please see the Council's comments on Page 10 above.
- Ecology - The Council considers the proposed study area to be appropriate to the project's Zone of Influence subject to appropriate extensions made to these distance where statutorily designated sites' features include mobile species such as wintering birds or bats.
- Socio-economics and Land Use – the cable route falls within a Minerals Consultation Areas which covers the same area as the Mineral Safeguarding Areas. Applications for non-minerals development should be accompanied by a Minerals Assessment in accordance with the latest guidance from the British Geological Survey and as such this cannot be scoped out until a Minerals Assessment has been produced. See Page 22 & 23 above.

Table 18-2

- Human Health – the Scoping Report rules out a Human Health chapter. Whilst some aspects are covered in individual chapters such as air quality, noise, landscape, visuals, and glint and glare, this does not fully address all possible adverse physical and mental health risks and concerns. Public Health would wish to see either this

part of the EIA strengthened with clear references / paragraphs on human health in relevant chapters of the EIA or a standalone HIA. See Pages 28/29 above.

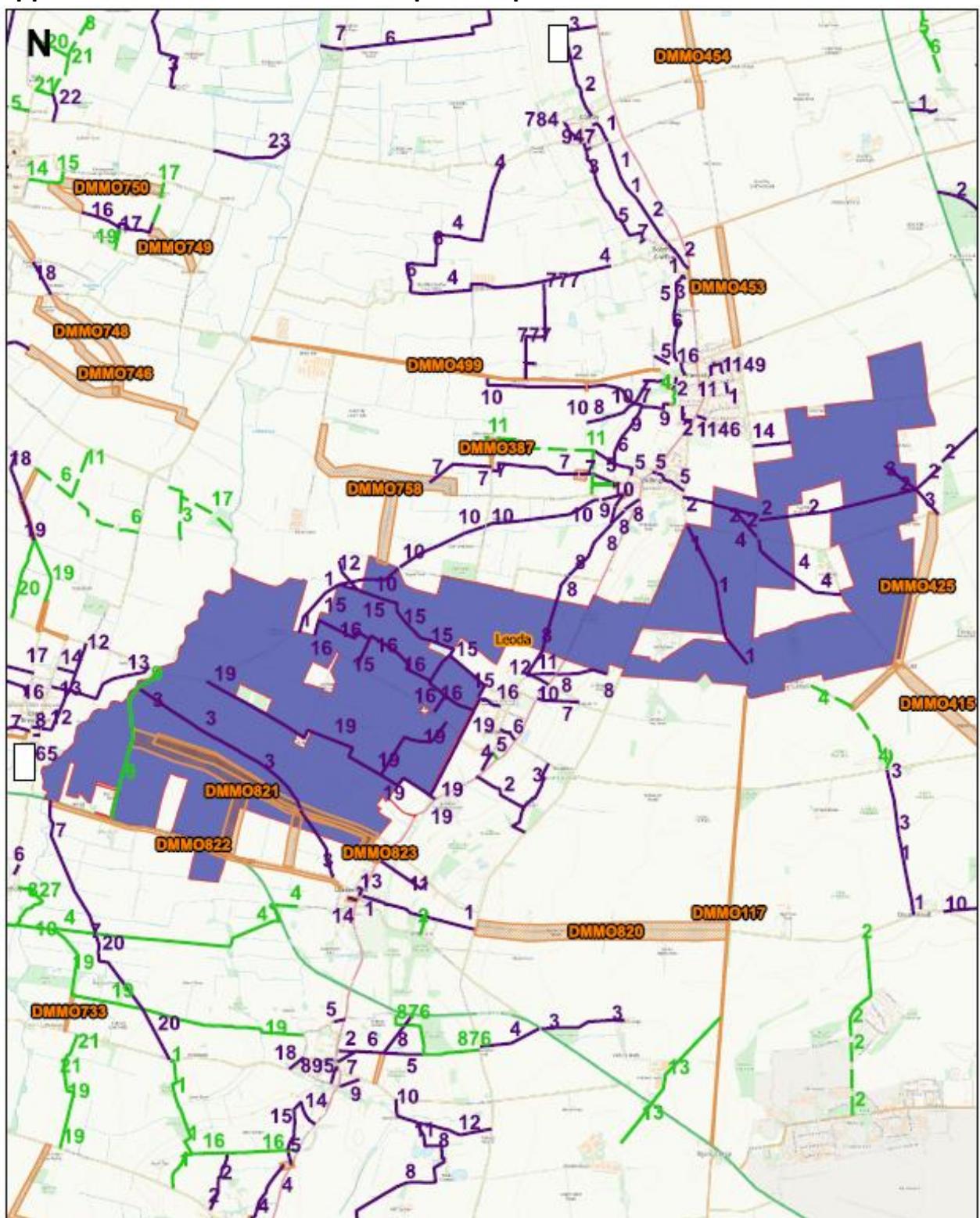
The Council will continue to engage with this proposal as required. Should there be any further queries, please do not hesitate to get in contact.

Yours sincerely,



For Neil McBride
Head of Planning

Appendix 1: Leoda Solar PROW Impact Map



Lincolnshire County Council, County Offices, Newland, Lincoln, LN1 1YL



Leoda Solar PROW Impact

Date: 24/02/2025

This map is for information only and should not be regarded as the Definitive Map of Public Rights of Way.
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Appendix 2: Fire Service Advice



Fire and Police Headquarters
Deepdale Lane
Nettleham
Lincoln
LN2 2LT
Tel: 01522 555777
www.lincolnshire.gov.uk/lfr

12/02/2025

Ref: Leoda Solar Farm
(NE of Leadenham & W of Broughton, North Kesteven)

To Who it May Concern,

TOWN AND COUNTRY PLANNING ACT 1990 PLANNING CONSULTATION – NOTES FROM THE FIRE AND RESCUE AUTHORITY

In order to be successful in firefighting, adequate access to buildings for fire appliances and immediate access to adequate supplies of water, must be provided. The access to, and proximity of, those water supplies directly affects the resources that Fire and Rescue Authorities need to provide in protecting and mitigating their communities from the effects of fire.

Please find below a list of Lincolnshire Fire and Rescue Authority requirements relating to access for fire appliances and firefighting water supplies.

ACCESS

1. Access to buildings for fire appliances and fire fighters must meet with the requirements specified in Building Regulations 2010 Part B5. For small buildings (up to 2000m², with a top occupied storey that is a maximum of 11m above ground level), vehicle access for a pump appliance should be provided to whichever is the less onerous of the following:
 - a. 15% of the perimeter.
 - b. Within 45m of every point of the footprint of the building

For all other buildings, provide vehicle access in accordance with Table 15.1 of Approved Document. These requirements may be satisfied with other equivalent standards relating to access for firefighting.

Lincolnshire Fire and Rescue requires a minimum carrying capacity for hard standing for pumping appliances of 18 tonnes, not 12.5 tonnes as detailed in the Building Regulations 2000 part B5.

2. If it is not possible to provide access to the proposed development in accordance with the guidance details within Part B5 of Approved Document B, as compensation, Lincolnshire Fire and Rescue may accept the provision, at the developer's expense, of an automatic sprinkler system, designed, fitted and maintained in accordance with the relevant sections of BS5306/BSEN12845:2004.

Should this option be considered, our Fire Safety advisers must be provided with detailed plans of the proposed sprinkler installation. Any scheme proposed should not be of a lesser standard than any provision as may be required by the Building Regulations.

WATER SUPPLIES

3. A building requires additional fire hydrants if both of the following apply.

- a. It has a compartment with an area more than 280m².
- b. It is being erected more than 100m from an existing fire hydrant.

If additional hydrants are required, these should be provided in accordance with the following:

- a. For buildings provided with fire mains – within 90m of dry fire main inlets.
- b. For buildings not provided with fire mains – hydrants should be both of the following:
 - i. Within 90m of an entrance to the building.
 - ii. A maximum of 90m apart.

**All fire hydrants should conform to BS750-2012 Each fire hydrant should be clearly indicated by a plate, fixed nearby in a conspicuous position, in accordance with BS 3251.*

Guidance on aspects of provision and siting of private fire hydrants is given in BS 9990. Fire hydrant acceptance testing will be carried out by a Hydrant Inspector on completion and a standard hydrant marker "H" plate will be fitted nearby. Following adoption the Fire Service will be responsible for the ongoing maintenance and repairs for the lifetime of the fire hydrant.

4. Where at the time, it is not possible to determine the number of fire hydrants required for firefighting purposes, the requirement should be determined at the water planning stage when site plans have been submitted by the water companies.
5. Where no piped water supply is available, or there is insufficient pressure and flow in the water main, or an alternative arrangement is proposed, the alternative source of supply should be provided in accordance with the following recommendations
 - a. a charged static water tank of at least 45,000 litres capacity; or

- b. a spring, river, canal or pond capable of providing or storing at least 45,000 litres of water at all times of the year, to which access, space and a hard standing are available for a pumping appliance; or
- c. any other means of providing a water supply for firefighting operations considered appropriate by the fire and rescue authority.

ENVIRONMENTAL

- 6. Bulk storage of highly flammable/explosive/water reactive/toxic substances and any site whereas large scale recycling activities are proposed will need to be specifically consulted with Fire Authority to ensure that the full operational impact, should a fire occur, is assessed and that an adequate provision is recommended.
- 7. There are a number of methods available, through which the fire water runoff problem can be addressed, the most obvious being to use a fire suppression system to contain a fire, thus not requiring large volumes of water and containment measures, such as bund walls or drainage systems with lagoons, interceptors, reed beds or treatment plants. It is not for the fire service to stipulate which approach to take, simply to ensure that suitable measures are made a condition of planning approval through a firefighting water run-off strategy.

Battery Energy Storage System (BESS) Requirements

Lincolnshire Fire and Rescue (LFR) recognises the use of batteries (including lithium-ion) as Energy Storage Systems (ESS) is a new and emerging practice in the global renewable energy sector. As with all new and emerging practices within UK industry the Service would like to work with the developers to better understand any risks that may be posed and develop strategies and procedures to mitigate these risks.

We will work and engage with the developer as the project evolves, to ensure it complies with the statutory responsibilities that we enforce.

The developer should produce a risk reduction strategy (Regulation 38 of the Building Regulations) as the responsible person for the scheme as stated in the Regulatory Reform (Fire Safety) Order 2005. We would also expect that safety measures and risk mitigation is developed in collaboration with LFR.

The strategy should cover the construction, operational and decommissioning phases of the project.

During the construction phase the number of daily vehicle movements in the local area will significantly increase. The Service will want to view the transport strategy to minimise this impact and prevent an increase in the number of potential road traffic incidents. Any development should not negatively impact on the Service's ability to respond to an incident in the local area.

LFR works within the guidance of the National Fire Chief's Council (NFCC) who have been working with several government departments to ensure that fire and rescue services are made aware of any new proposals. NFCC have created a guidance document (link below) that constitutes LFR's requirements for new BESS development proposals.

NFCC Grid Scale BESS planning – Guidance for FRS (nfcc.org.uk)

Following the work of NFCC, the Department for Levelling Up, Housing and Communities (DLUHC) has revised its Planning Policy Guidance to include reference to BESS. The guidance is available here: [Renewable and low carbon energy – GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/publications/renewable-and-low-carbon-energy)

LFR are aware that large scale BESS is a fairly new technology, and as such risks may or may not be captured in current guidance in pursuance of the Building Regulations (as amended) and the Regulatory Reform (Fire Safety) Order 2005. This will highlight challenges the FRS have when responding to Building Regulations consultations. For this reason, we strongly recommend applying the National Fire Protection Association (NFPA) 855 Standard for the Installation of Stationary Energy Storage Systems.

Failure to comply with the above requirements at planning stage can seriously compromise firefighting operations resulting in unnecessary risk to life, loss of property and unnecessary damage to the environment.

Should you wish to discuss adequacy of access or water supplies to your proposed development, please contact the Community Fire Protection department on 01522 553868.

Yours faithfully

Nick Morris

Station Manager Prevention & Protection
Lincolnshire Fire and Rescue
Lincolnshire County Council
Fire & Police Headquarters Deepdale Lane Nettleham



Defence Infrastructure Organisation

Your reference: EN110016
Our reference: 10066031

Ministry of Defence
Safeguarding Department
DIO Head Office
St George's House
DMS Whittington
Lichfield
Staffordshire WS14 9PY

E-mail: DIO-Safeguarding-Statutory@mod.gov.uk

[@mod.gov.uk](mailto:DIO-Safeguarding-Statutory@mod.gov.uk)

Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol,
BS1 6PN

26th February 2025

Dear [REDACTED],

MOD Safeguarding – Leoda Solar Farm

Proposal: The installation of solar PV generating panels, interconnecting cabling and on-site BESS facilities across the proposed Solar PV Site together with grid connection infrastructure located within the Grid Connection Corridor.

Location: Leoda Solar Farm. The Land on and between Welbourn Low Fields and Wellingore Heath

Grid Ref: 491617, 353213
492410, 357200
493458, 355391
493760, 355689
494546, 355572
494393, 355048
494639, 354995
495239, 355839
492720, 352891
493355, 352716
493424, 352314
493995, 352457

495880, 353221
496275, 353999
496407, 354285
496645, 354733
496788, 355451
497711, 355472
498708, 356170
498994, 356432
499468, 356289
499772, 357424
500769, 357527
500702, 358010
501236, 358153
501406, 357277
501186, 356838
501167, 356050
501022, 354664
499504, 354336
498392, 354510

Thank you for consulting the Ministry of Defence (MOD) on the above proposed development which was received by this office on the 10/02/2025.

The Defence Infrastructure Organisation (DIO) Safeguarding Team represents the Ministry of Defence (MOD) as a consultee in UK planning and energy consenting systems to ensure that development does not compromise or degrade the operation of defence sites such as aerodromes, explosives storage sites, air weapon ranges, and technical sites or training resources such as the UK Military Low Flying System.

The applicant has submitted a full approval application for the installation of solar PV generating panels, interconnecting cabling, and on-site BESS facilities across the proposed Solar PV Site together with grid connection infrastructure located within the Grid Connection Corridor.

The application site occupies the statutory safeguarding zones surrounding RAF Waddington, RAF Cranwell and RAF Barkston Heath.

After reviewing the application documents, I can confirm the MOD has no safeguarding objections to this proposal.

Birdstrike safeguarding zone.

Within this zone, the principal concern of the MOD is that the creation of new habitats may attract and support populations of those large and/or flocking bird species hazardous to aviation safety close to an aerodrome.

The MOD must emphasise that the advice provided within this letter is in response to the data and information detailed within the developer's document, submitted in support of application EN0110016, as referred to in the consultation letter dated 10th February 2025, received from Planning Inspectorate.

Any variation of the parameters (which include the location, dimensions, form, and finishing materials) detailed may significantly alter how the development relates to MOD safeguarding requirements and cause adverse impacts to safeguarded defence assets or capabilities. In the event that any amendment, whether considered material or not by the determining authority, is submitted for approval, the MOD should be consulted and provided with adequate time to carry out assessments and provide a formal response.

I trust this is clear however should you have any questions please do not hesitate to contact me.

Yours sincerely

A black rectangular redaction box followed by a thinner black horizontal line.

Assistant Safeguarding Manager

From: box.assetprotection.
To: Leoda.Solar.Farm
Subject: RE: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 04 February 2025 13:41:05
Attachments: [image003.png](#)
[image004.png](#)
[image005.png](#)

You don't often get email from box.assetprotection@nationalgas.com. [Learn why this is important](#)

Hi,

Thank you for your email.

Regarding planning application at site location Leoda Solar Farm there are no National Gas assets affected in this area.

If you would like to view if there are any other affected assets in this area, please raise an enquiry with www.lsbud.co.uk. Additionally, if the location or works type changes, please raise an enquiry.

Kind Regards

[REDACTED]
Asset Protection Assistant

Asset Protection

[REDACTED] @nationalgas.com



National Gas Transmission, Warwick Technology Park, Gallows Hill, Warwick, CV34 6DA

nationalgas.com | [Twitter](#) | [LinkedIn](#)

Please consider the environment before printing this email.

From: Leoda Solar Farm
Sent: 03 February 2025 14:44
To: Leoda Solar Farm
Subject: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

[EXTERNAL EMAIL] This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe. If you suspect this email is malicious, please use the 'Report Phish'.

Dear Sir/Madam

Please see attached correspondence on the proposed **Leoda Solar Farm**.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its future application.

The Planning Inspectorate has identified you as a consultation body to inform the Scoping Opinion and is therefore inviting you to submit comments by **03 March 2025**. The deadline is a statutory requirement that cannot be extended.

Further information is included within the attached letter.

[REDACTED]
Development Liaison Officer
Customer Connections
Land, Planning and External Affairs
[REDACTED] @nationalgrid.com
[REDACTED]

www.nationalgrid.com

SUBMITTED ELECTRONICALLY:
LeodaSolarFarm@planninginspectorate.gov.uk

03 March 2025

Dear Sir/Madam

**APPLICATION BY LEODA SOLAR FARM LIMITED (THE APPLICANT) FOR AN ORDER
GRANTING DEVELOPMENT CONSENT FOR THE LEODA SOLAR FARM (THE PROPOSED
DEVELOPMENT)**

SCOPING CONSULTATION RESPONSE

I refer to your letter dated 3rd February 2025 in relation to the above proposed application. This is a response on behalf of National Grid Electricity Transmission PLC (NGET).

Having reviewed the scoping report, I would like to make the following comments regarding NGET existing or future infrastructure within or in close proximity to the current red line boundary.

NGET has high voltage electricity overhead transmission lines within the scoping area. The overhead lines and substations forms an essential part of the electricity transmission network in England and Wales.

Existing Infrastructure

Overhead Lines

4ZM 400kV OHL	Bicker Fen – Spalding North – West Burton
	Bicker Fen – Walpole – West Burton

I enclose a plan showing the location of NGET's apparatus in the scoping area.

New infrastructure

Please refer to the Holistic Network Design (HND) and the National Grid ESO website to view the strategic vision for the UK's ever growing electricity transmission network.
<https://www.nationalgrideso.com/future-energy/the-pathway-2030-holistic-network-design/hnd>

The following NGET New Infrastructure projects are known to interact with the Proposed Development:

New substation in the Navenby area

A new 400 kV substation is required to facilitate customer connections for proposed solar farms in the area. The proposed substation will be located to the north of Heath Lane, with access from Heath Lane. The substation will be set back from the road and cover approximately 32 acres. It will be an 'open air' substation with a maximum height of 15 metres. Four new pylons will also need to be constructed as part of the plans, and two existing pylons will be dismantled.

You can find out more about this project from our website: <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects/navenby-substation>

NGET requests that all existing and future assets are given due consideration given their criticality to distribution of energy across the UK. We remain committed to working with the promoter in a proactive manner, enabling both parties to deliver successful projects wherever reasonably possible. As such we encourage that ongoing discussion and consultation between both parties is maintained on interactions with existing or future assets, land interests, connections or consents and any other NGET interests which have the potential to be impacted prior to submission of the Proposed DCO.

The Great Grid Upgrade is the largest overhaul of the electricity grid in generations, we are in the middle of a transformation, with the energy we use increasingly coming from cleaner greener sources. Our infrastructure projects across England and Wales are helping to connect more renewable energy to homes and businesses. To find out more about our current projects please refer to our network and infrastructure webpage. <https://www.nationalgrid.com/electricity-transmission/network-and-infrastructure/infrastructure-projects>. Where it has been identified that your project interacts with or is in close proximity to one of NGET's infrastructure projects, we would welcome further discussion at the earliest opportunity.

These projects are all essential to increase the overall network capability to connect the numerous new offshore wind farms that are being developed, and transport new clean green energy to the homes and businesses where it is needed.

Specific Comments – Electricity Infrastructure:

- NGET's Overhead Line/s is protected by a Deed of Easement/Wayleave Agreement which provides full right of access to retain, maintain, repair and inspect our asset
- Statutory electrical safety clearances must be maintained at all times. Any proposed buildings must not be closer than 5.3m to the lowest conductor. NGET recommends that no permanent structures are built directly beneath overhead lines. These distances are set out in EN 43 – 8 Technical Specification for “overhead line clearances Issue 5 (2019)”.
- If any changes in ground levels are proposed either beneath or in close proximity to our existing overhead lines then this would serve to reduce the safety clearances for such overhead lines. Safe clearances for existing overhead lines must be maintained in all circumstances.
- The relevant guidance in relation to working safely near to existing overhead lines is contained within the Health and Safety Executive's (www.hse.gov.uk) Guidance Note GS 6 “Avoidance of Danger from Overhead Electric Lines” and all relevant site staff should make sure that they are both aware of and understand this guidance.
- Plant, machinery, equipment, buildings or scaffolding should not encroach within 5.3 metres of any of our high voltage conductors when those conductors are under their worse conditions of maximum “sag” and “swing” and overhead line profile (maximum “sag” and “swing”) drawings should be obtained using the contact details above.
- If a landscaping scheme is proposed as part of the proposal, we request that only slow and low growing species of trees and shrubs are planted beneath and adjacent to the existing overhead line to reduce the risk of growth to a height which compromises statutory safety clearances.
- Drilling or excavation works should not be undertaken if they have the potential to disturb or adversely affect the foundations or “pillars of support” of any existing tower. These foundations always extend beyond the base area of the existing tower and foundation (“pillar of support”) drawings can be obtained using the contact details above.
- NGET high voltage underground cables are protected by a Deed of Grant; Easement; Wayleave Agreement or the provisions of the New Roads and Street Works Act. These provisions provide NGET full right of access to retain, maintain, repair and inspect our assets. Hence we require that no permanent / temporary structures are to be built over our cables or within the easement strip. Any such proposals should be discussed and agreed with NGET prior to any works taking place.
- Ground levels above our cables must not be altered in any way. Any alterations to the depth of our cables will subsequently alter the rating of the circuit and can compromise the reliability, efficiency and safety of our electricity network and requires consultation with National Grid prior to any such changes in both level and construction being implemented.

To download a copy of the HSE Guidance HS(G)47, please use the following link:
<http://www.hse.gov.uk/pubs/books/hsg47.htm>

Further Advice

We would request that the potential impact of the proposed scheme on NGET's existing and future assets as set out above and including any proposed diversions is considered in any subsequent reports, including in the Environmental Statement, and as part of any subsequent application.

Where any diversion of apparatus may be required to facilitate a scheme, NGET is unable to give any certainty with the regard to diversions until such time as adequate conceptual design studies have been undertaken by NGET. Further information relating to this can be obtained by contacting the email address below.

Where the promoter intends to acquire land, extinguish rights, or interfere with any of NGET apparatus, protective provisions will be required in a form acceptable to it to be included within the DCO.

NGET requests to be consulted at the earliest stages to ensure that the most appropriate protective provisions are included within the DCO application to safeguard the integrity of our apparatus and to remove the requirement for objection. All consultations should be sent to the following email address: box.landandacquisitions@nationalgrid.com

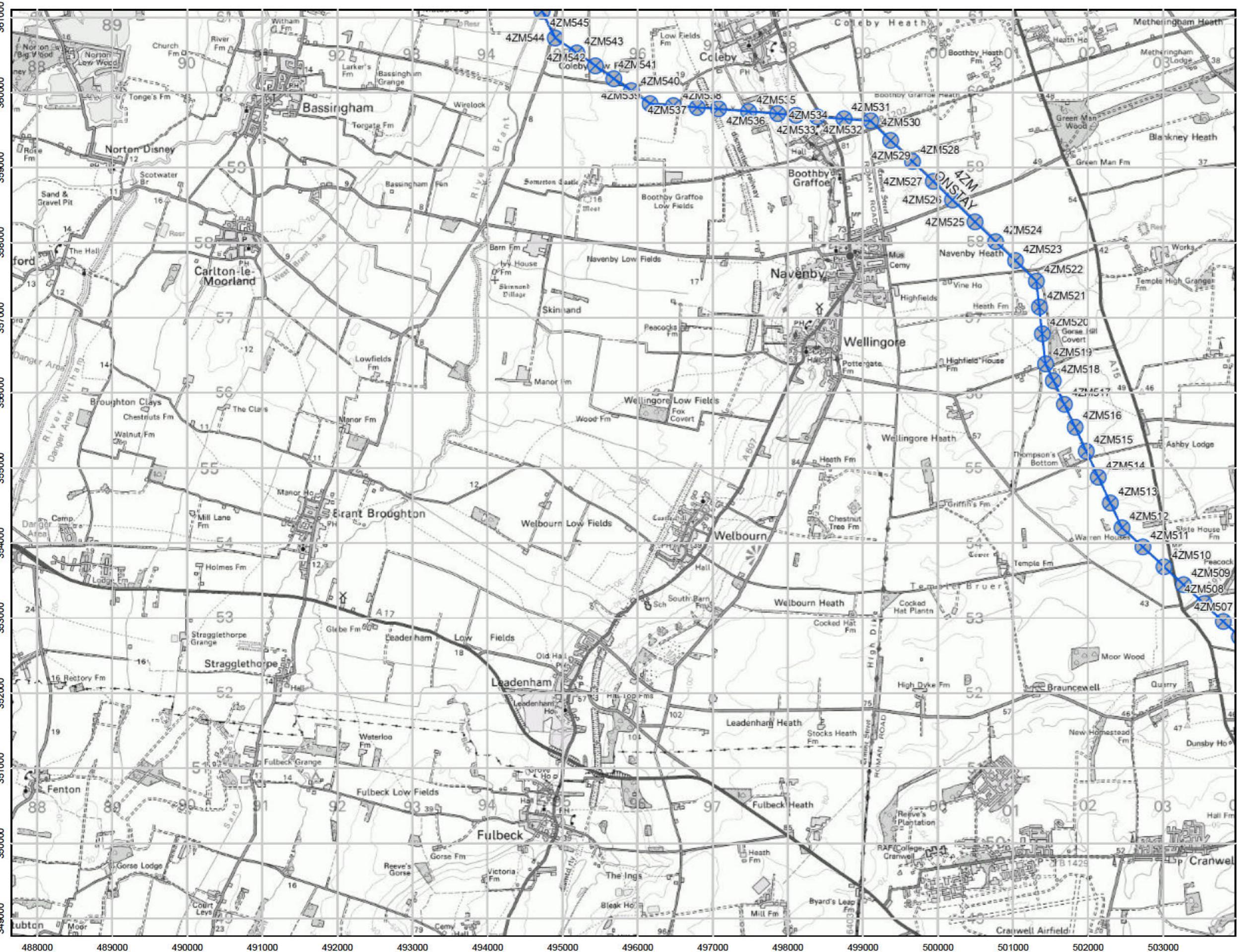
I hope the above information is useful. If you require any further information, please do not hesitate to contact me.

The information in this letter is provided notwithstanding any discussions taking place in relation to connections with electricity customer services.

Yours faithfully



**Development Liaison Officer
Customer Connections
Land, Planning and External Affairs**



Legend

Fibre Cable

Fibre Cable
— Commissioned

Towers

Towers
○ Commissioned

OHL 400kV

OHL 400kV
— Commissioned

Notes

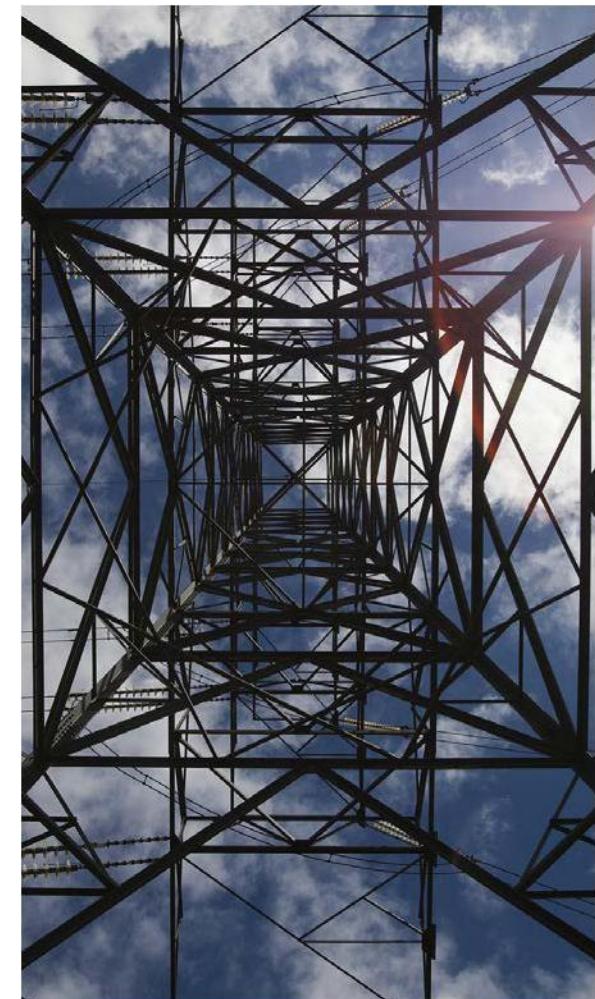
Third-party guidance for working near National Grid Electricity Transmission equipment





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Disclaimer

National Grid Gas Transmission and National Grid Electricity Transmission or their agents, servants or contractors do not accept any liability for any losses arising under or in connection with this information. This limit on liability applies to all and any claims in contract, tort (including negligence), misrepresentation (excluding fraudulent misrepresentation), breach of statutory duty or otherwise. This limit on liability does not exclude or restrict liability where prohibited by the law, nor does it supersede the express terms of any related agreements.



Purpose and scope

The purpose of this document is to give guidance and information to third parties who are proposing, scheduling or designing developments close to National Grid Electricity Transmission assets.

The scope of the report covers information on basic safety and the location of our assets – and also highlights key issues around particular types of development and risk areas.

In the case of electrical assets, National Grid does not authorise or agree safe systems of work with developers and contractors. However, we will advise on issues such as electrical safety clearances and the location of towers and cables. We also work with developers to minimise the impact of any National Grid assets that are nearby.

How to identify specific National Grid sites

Substations

The name of the Substation and emergency contact number will be on the site sign.



Overhead Lines

The reference number of the tower and the emergency contact number will be on this type of sign.



Contact National Grid

Plant protection

For routine enquiries regarding planned or scheduled works, contact the Asset Protection team online, by email or phone.

www.lsbud.co.uk

Email: assetprotection@nationalgrid.com

Phone: 0800 001 4282

Emergencies

In the event of occurrences such as a cable strike, coming into contact with an overhead line conductor or identifying any hazards or problems with National Grid's equipment, phone our emergency number 0800 404 090 (option 1).

If you have apparatus within 30m of a National Grid asset, please ensure that the emergency number is included in your site's emergency procedures.

Consider safety

Consider the hazards identified in this document when working near electrical equipment



Part 1

Electricity transmission infrastructure

National Grid owns and maintains the high-voltage electricity transmission network in England and Wales (Scotland has its own networks). It's responsible for balancing supply with demand on a minute-by-minute basis across the network.

Overhead lines

Overhead lines consist of two main parts – pylons (also called towers) and conductors (or wires). Pylons are typically steel lattice structures mounted on concrete foundations. A pylon's design can vary due to factors such as voltage, conductor type and the strength of structure required.

Conductors, which are the 'live' part of the overhead line, hang from pylons on insulators. Conductors come in several different designs depending on the amount of power that is transmitted on the circuit.

In addition to the two main components, some Overhead Line Routes carry a Fibre Optic cable between the towers with an final underground connection to the Substations.

In most cases, National Grid's overhead lines operate at 275kV or 400kV.

Underground cables

Underground cables are a growing feature of National Grid's network. They consist of a conducting core surrounded by layers of insulation and armour. Cables can be laid in the road, across open land or in tunnels. They operate at a range of voltages, up to 400kV.

Substations

Substations are found at points on the network where circuits come together or where a rise or fall in voltage is required. Transmission substations tend to be large facilities containing equipment such as power transformers, circuit breakers, reactors and capacitors. In addition Diesel generators and compressed air systems can be located there.

Part 2

Statutory requirements for working near high-voltage electricity

The legal framework that regulates electrical safety in the UK is [The Electricity Safety, Quality and Continuity Regulations \(ESQCR\) 2002](#). This also details the minimum electrical safety clearances, which are used as a basis for the Energy Networks Association (ENA) TS 43-8. These standards have been agreed by CENELEC (European Committee for Electrotechnical Standardisation) and also form part of the *British Standard BS EN 50341-1:2012 Overhead Electrical Lines exceeding AC 1kV*. All electricity companies are bound by these rules, standards and technical specifications. They are required to uphold them by their operator's licence.

Electrical safety clearances

It is essential that a safe distance is kept between the exposed conductors and people and objects when working near National Grid's electrical assets. A person does not have to touch an exposed conductor to get a life-threatening

electric shock. At the voltages National Grid operates at, it is possible for electricity to jump up to several metres from an exposed conductor and kill or cause serious injury to anyone who is nearby. For this reason, there are several legal requirements and safety standards that must be met.

Any breach of legal safety clearances will be enforced in the courts. This can and has resulted in the removal of an infringement, which is normally at the cost of the developer or whoever caused it to be there. Breaching safety clearances, even temporarily, risks a serious incident that could cause serious injury or death.

National Grid will, on request, advise planning authorities, developers or third parties on any safety clearances and associated issues. We can supply detailed drawings of all our overhead line assets marked up with relevant safe areas.



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Your Responsibilities - Overhead lines

Work which takes place near overhead power lines carries a significant risk of coming into proximity with the wires. If any person, object or material gets too close to the wires, electricity could 'flashover' and be conducted to earth, causing death or serious injury. You do not need to touch the wires for this to happen. The law requires that work is carried out in close proximity to live overhead power lines only when there is no alternative, and only when the risks are acceptable and can be properly controlled. Statutory clearances exist which must be maintained, as prescribed by the Electricity Safety, Quality and Continuity Regulations 2002.

Under the Health and Safety at Work etc. Act 1974 and Management of Health and Safety at Work Regulations 1999, you are responsible for preparing a suitable and sufficient risk assessment and safe systems of work, to ensure that risks are managed properly and the safety of your workforce and others is maintained. Your risk assessment must consider and manage all of the significant risks and put in place suitable precautions/controls in order to manage the work safely. You are also responsible for ensuring that the precautions identified are properly implemented and stay in place throughout the work.

Work near overhead power lines must always be conducted in accordance with GS6, 'avoiding danger from overhead power lines', and any legislation which is relevant to the work you are completing.

What National Grid will provide

National Grid can supply profile drawings in PDF and CAD format showing tower locations and relevant clearances to assist you in the risk assessment process.

What National Grid will not provide

National Grid will not approve safe systems of work or approve design proposals



Part 3

What National Grid will do for you and your development

Provision of information

National Grid should be notified during the planning stage of any works or developments taking place near our electrical assets, ideally a minimum notification period of 8 weeks to allow National Grid to provide the following services:

Drawings

National Grid will provide relevant drawings of overhead lines or underground cables to make sure the presence and location of our services are known. Once a third party or developer has contacted us, we will supply the drawings for free.

400kV

The maximum nominal voltage of the underground cables in National Grid's network

Risk or impact identification

National Grid can help identify any hazards or risks that the presence of our assets might bring to any works or developments. This includes both the risk to safety from high-voltage electricity and longer-term issues, such as induced currents, noise and maintenance access that may affect the outcome of the development. National Grid will not authorise specific working procedures, but we can provide advice on best practice.





Risks or hazards to be aware of

This section includes a brief description of some of the hazards and issues that a third party or developer might face when working or developing close to our electrical infrastructure.

Land and access

National Grid has land rights in place with landowners and occupiers, which cover our existing overhead lines and underground cable network. These agreements, together with legislation set out under the *Electricity Act 1989*, allow us to access our assets to maintain, repair and renew them. The agreements also lay down restrictions and covenants to protect the integrity of our assets and meet safety regulations. Anyone proposing a development close to our assets should carefully examine these agreements.

Our agreements often affect land both inside and outside the immediate vicinity of an asset. Rights will include the provision of access, along with restrictions that ban the development of land through building, changing levels, planting and other operations. Anyone looking to develop close to our assets must consult with National Grid first.

For further information, contact Asset Protection:

Email: assetprotection@nationalgrid.com
Phone: 0800 001 4282

Electrical clearance from overhead lines

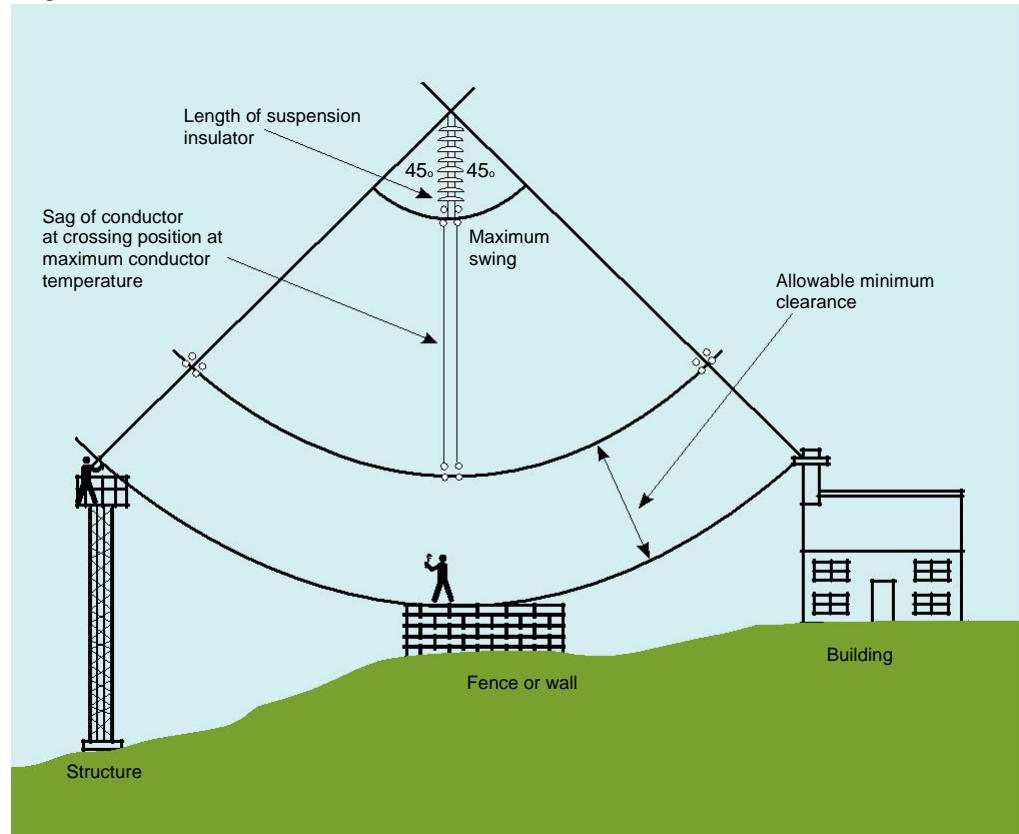
The clearance distances referred to in this section are specific to 400kV overhead lines. National Grid can advise on the distances required around different voltages i.e. 132kV and 275kV.

As we explained earlier, *Electrical Networks Association TS 43-8* details the legal clearances to our overhead lines. The minimum clearance between the conductors of an overhead line and the ground is 7.3m at maximum sag. The sag is the vertical distance between the wire's highest and lowest point. Certain conditions, such as power flow, wind speed and air temperature can cause conductors to move and allowances should be made for this.

The required clearance from the point where a person can stand to the conductors is 5.3m. To be clear, this means there should be at least 5.3m from where someone could stand on any structure (i.e. mobile and construction equipment) to the conductors. Available clearances will be assessed by National Grid on an individual basis.

National Grid expects third parties to implement a safe system of work whenever they are near Overhead Lines.

Diagram not to scale



There should be at least 5.3m between the conductors and any structure someone could stand on

We recommend that guidance such as *HSE Guidance Note GS6 (Avoiding Danger from Overhead Power Lines)* is followed, which provides advice on how to avoid danger from all overhead lines, at all voltages. If you are carrying out work near overhead lines you must contact National Grid, who will provide the relevant profile drawings.

7.3m

The required minimum clearance between the conductors of an overhead line, at maximum sag, and the ground

[Section continues on next page »](#)



The undergrounding of electricity cables at Ross-on-Wye

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Underground cables Underground cables operating at up to 400kV are a significant part of the National Grid Electricity Transmission network. When your works will involve any ground disturbance it is expected that a safe system of work is put in place and that you follow guidance such as *HSG 47 (Avoiding Danger from Underground Services)*.

You must contact National Grid to find out if there are any underground cables near your proposed works. If there are, we will provide cable profiles and location drawings and, if required, on-site supervision of the works. Cables can be laid under roads or across industrial or agricultural land. They can even be layed in canal towpaths and other areas that you would not expect.

Impressed voltage

Any conducting materials installed near high-voltage equipment could be raised to an elevated voltage compared to the local earth, even when there is no direct contact with the high-voltage equipment. These impressed voltages are caused by inductive or capacitive coupling between the high-voltage equipment and nearby conducting materials and can occur at distances of several metres away from the

Cables crossing any National Grid high-voltage (HV) cables directly buried in the ground are required to maintain a minimum separation that will be determined by National Grid on a case-by-case basis. National Grid will need to do a rating study on the existing cable to work out if there are any adverse effects on either cable rating. We will only allow a cable to cross such an area once we know the results of the re-rating. As a result, the clearance distance may need to be increased or alternative methods of crossing found.

For other cables and services crossing the path of our HV cables, National Grid will need confirmation that published standards and clearances are met.

equipment. Impressed voltages may damage your equipment and could potentially injure people and animals, depending on their severity. Third parties should take impressed voltages into account during the early stages and initial design of any development, ensuring that all structures and equipment are adequately earthed at all times.

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previous page

Earth potential rise

Under certain system fault conditions – and during lightning storms – a rise in the earth potential from the base of an overhead line tower or substation is possible. This is a rare phenomenon that occurs when large amounts of electricity enter the earth. This can pose a serious hazard to people or equipment that are close by.

We advise that developments and works are not carried out close to our tower bases, particularly during lightning storms.

Noise

Noise is a by-product of National Grid's operations and is carefully assessed during the planning and construction of any of our equipment. Developers should consider the noise emitted from National Grid's sites or overhead lines when planning any developments, particularly housing. Low-frequency hum from substations can, in some circumstances, be heard up to 1km or more from the site, so it is essential that developers find adequate solutions for this in their design. Further information about likely noise levels can be provided by National Grid.

Maintenance access

National Grid needs to have safe access for vehicles around its assets and work that restricts this will not be allowed. In terms of our overhead lines, we wouldn't want to see any excavations made, or permanent structures built, that might affect the foundations of our towers. The size of the foundations around a tower base depends on the type of tower that is built there. If you wish to carry out works within 30m of the tower base, contact National Grid for more information. Our business has to maintain access routes to tower bases with land owners. For that reason, a route wide enough for an HGV must be permanently available. We may need to access our sites, towers, conductors and underground cables at short notice.

30m

*If you wish to carry out work
within this distance of the tower
base, you must contact National
Grid for more information*

Section continues on
next page »





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Fires and firefighting

National Grid does not recommend that any type of flammable material is stored under overhead lines. Developers should be aware that in certain cases the local fire authority will not use water hoses to put out a fire if there are live, high-voltage conductors within 30m of the seat of the fire (as outlined in ENA TS 43-8).

In these situations, National Grid would have to be notified and reconfigure the system – to allow staff to switch out the overhead line – before any firefighting could take place. This could take several hours.

We recommend that any site which has a specific hazard relating to fire or flammable material should include National Grid's emergency contact details (found at the beginning and end of this document) in its fire plan information, so any incidents can be reported.

Developers should also make sure their insurance cover takes into account the challenge of putting out fires near our overhead lines.

Excavations, piling or tunnelling

You must inform National Grid of any works that have the potential to disturb the foundations of our substations or overhead line towers. This will have to be assessed by National Grid engineers before any work begins.

BS ISO 4866:2010 states that a minimum distance of 200m should be maintained when carrying out quarry blasting near our assets. However, this can be reduced with specific site surveys and changes to the maximum instantaneous charge (the amount of explosive detonated at a particular time).

All activities should observe guidance laid out in BS 5228-2:2009.

Microshocks

High-voltage overhead power lines produce an electric field. Any person or object inside this field that isn't earthed picks up an electrical charge. When two conducting objects – one that is grounded and one that isn't – touch, the charge can equalise and cause a small shock, known as a microshock. While they are not harmful, they can be disturbing for the person or animal that suffers the shock.

For these reasons, metal-framed and metal-clad buildings which are close to existing overhead lines should be earthed to minimise the risk of microshocks. Anything that isn't earthed, is conductive and sits close to the lines is likely to pick up a charge. Items such as deer fences, metal palisade fencing, chain-link fences and metal gates underneath overhead lines all need to be earthed.

For further information on microshocks please visit www.emfs.info.





Specific development guidance

Wind farms

National Grid's policy towards wind farm development is closely connected to the *Electricity Networks Association Engineering Recommendation L44 Separation between Wind Turbines and Overhead Lines, Principles of Good Practice*. The advice is based on national guidelines and global research. It may be adjusted to suit specific local applications.

There are two main criteria in the document:

(i) The turbine shall be far enough away to avoid the possibility of toppling onto the overhead line

(ii) The turbine shall be far enough away to avoid damage to the overhead line from downward wake effects, also known as turbulence

The toppling distance is the minimum horizontal distance between the worst-case pivot point of the wind turbine and the conductors hanging in still air. It is the greater of:

- the tip height of the turbine plus 10%
- or, the tip height of the turbine plus the electrical safety distance that applies to the voltage of the overhead line.

To minimise the downward wake effect on an overhead line, the wind turbine should be three times the rotor distance away from the centre of the overhead line.

Wake effects can prematurely age conductors and fittings, significantly reducing the life of the asset. For that reason, careful consideration should be taken if a wind turbine needs to be sited within the above limits. Agreement from National Grid will be required.

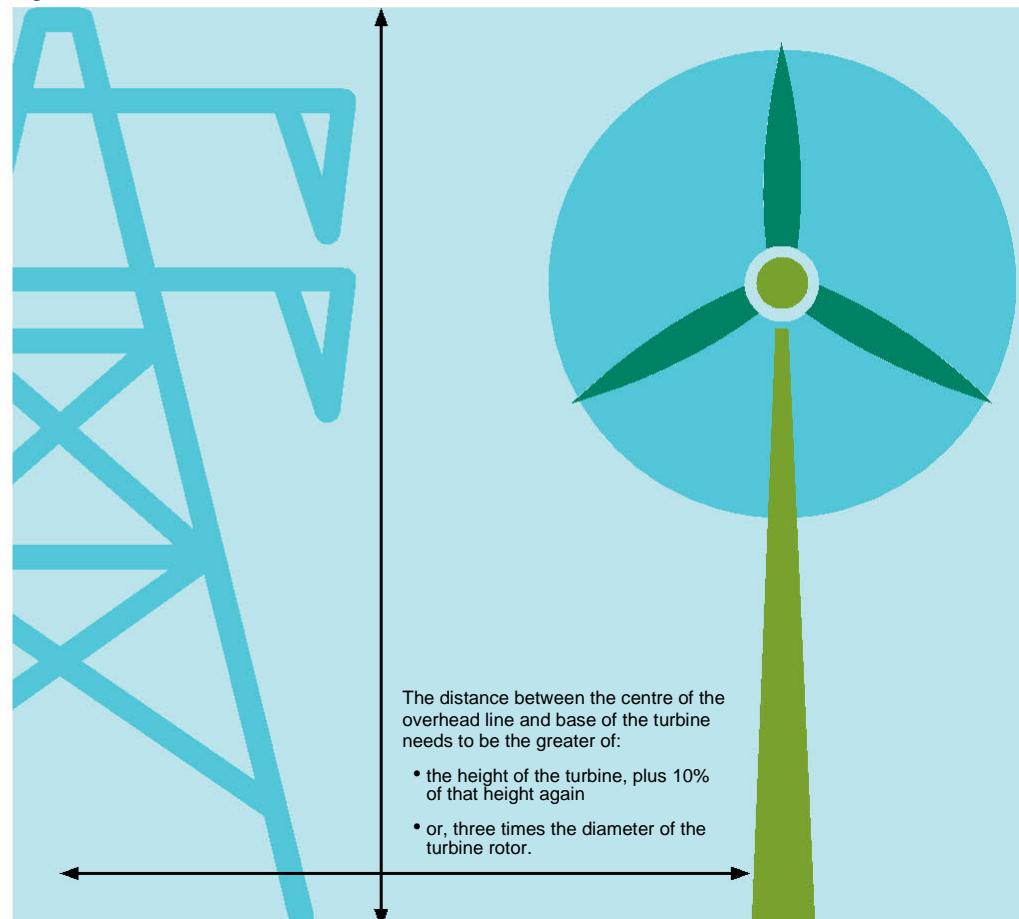
Commercial and housing developments

National Grid has developed a document called *Design guidelines for development near pylons and HVO power lines*, which gives advice to anyone involved in planning or designing large-scale developments that are crossed by, or close to, overhead lines.

The document focuses on existing 275kV and 400kV overhead lines on steel lattice towers, but can equally apply to 132kV and below. The document explains how to design large-scale developments close to high-voltage lines, while respecting clearances and the development's visual and environmental impact.

[Section continues on next page »](#)

Diagram not to scale



Turbines should be far enough away to avoid the possibility of toppling onto the overhead line



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The advice is intended for developers, designers, landowners, local authorities and communities, but is not limited to those organisations.

Overall, developers should be aware of all the hazards and issues relating to the electrical equipment that we have discussed when designing new housing.

As we explored earlier, National Grid's assets have the potential to create noise. This can be low frequency and tonal, which makes it quite noticeable. It is the responsibility of developers to take this into account during the design stage and find an appropriate solution.

Solar farms

While there is limited research and recommendations available, there are several key factors to consider when designing Solar Farms in the vicinity of Overhead Power Lines.

Developers may be looking to build on arable land close to National Grid's assets. In keeping with the safety clearance limits that we outlined earlier for solar panels directly underneath overhead line conductors, the highest point on the solar panels must be no more than 5.3m from the lowest conductors.

This means that the maximum height of any structure will need to be determined to make sure safety clearance limits aren't breached. This could be as low as 2m. National Grid will supply profile drawings to aid the planning of solar farms and determine the maximum height of panels and equipment.

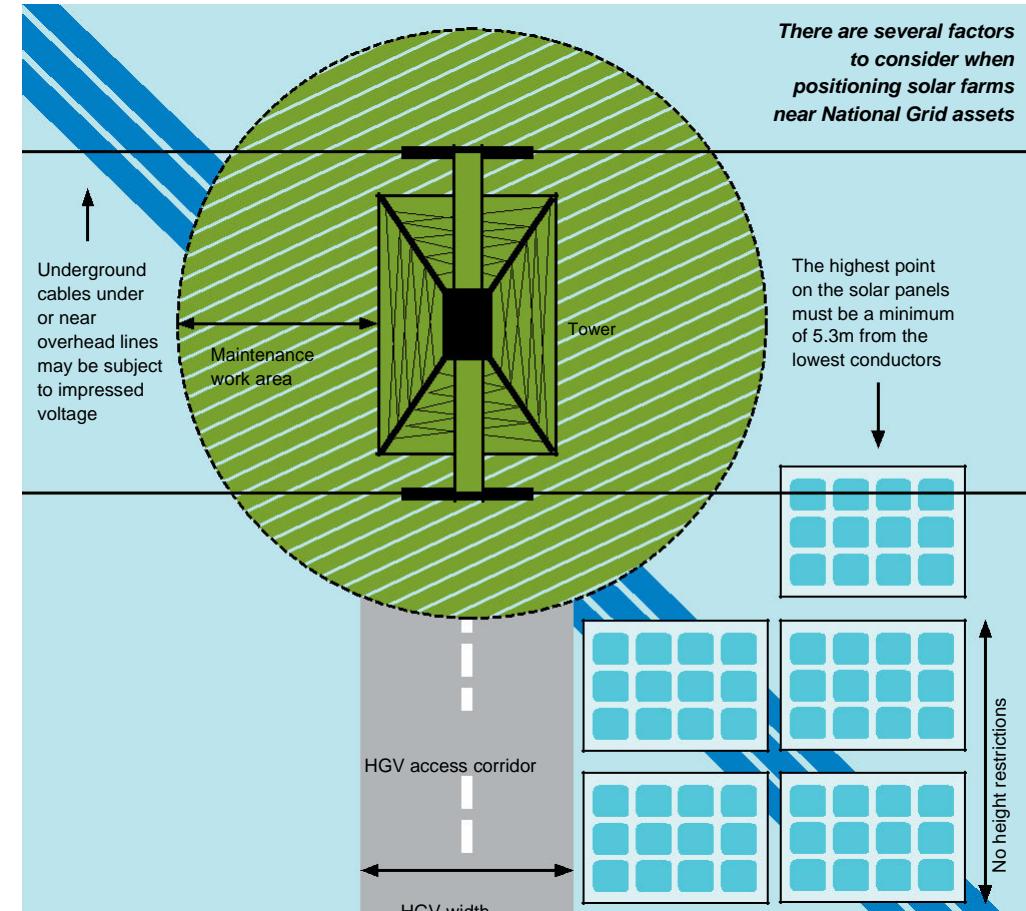
Solar panels that are directly underneath power lines risk being damaged on the rare occasion that a conductor or fitting falls to the ground. A more likely risk is ice falling from conductors or towers in winter and damaging solar panels.

There is also a risk of damage during adverse weather conditions, such as lightning storms, and system faults. As all our towers are earthed, a weather event such as lightning can cause a rise in the earth potential around the base of a tower. Solar panel support structures and supply cables should be adequately earthed and bonded together to minimise the effects of this temporary rise in earth potential.

Any metallic fencing that is located under an overhead line will pick up an electrical charge. For this reason, it will need to be adequately earthed to minimise microshocks to the public.

For normal, routine maintenance and in an emergency National Grid requires unrestricted access to its assets. So if a tower is enclosed in a solar farm compound, we will need full access for our vehicles,

Diagram not to scale



Including access through any compound gates. During maintenance – and especially re-conductoring – National Grid would need enough space near our towers for winches and cable drums. If enough space is not available, we would require solar panels to be temporarily removed.



Asset protection agreements

In some cases, where there is a risk that development will impact on National Grid's assets, we will insist on an asset protection agreement being put in place. The cost of this will be the responsibility of the developer or third party.

Contact details

Emergency situations

If you spot a potential hazard on or near an overhead electricity line, do not approach it, even at ground level. Keep as far away as possible and follow the six steps below:

- Warn anyone close by to evacuate the area
- Call our 24-hour electricity emergency number:
0800 404 090 (Option 1)¹
- Give your name and contact phone number
- Explain the nature of the issue or hazard
- Give as much information as possible so we can identify the location – i.e. the name of the town or village, numbers of nearby roads, postcode and (ONLY if it can be observed without putting you or others in danger) the tower number of an adjacent pylon
- Await further contact from a National Grid engineer

¹ It is critically important that you don't use this phone number for any other purpose. If you need to contact National Grid for another reason please use our Contact Centre at www2.nationalgrid.com/contact-us to find the appropriate information or call 0800 0014282.

Routine enquiries

Email:
assetprotection@nationalgrid.com

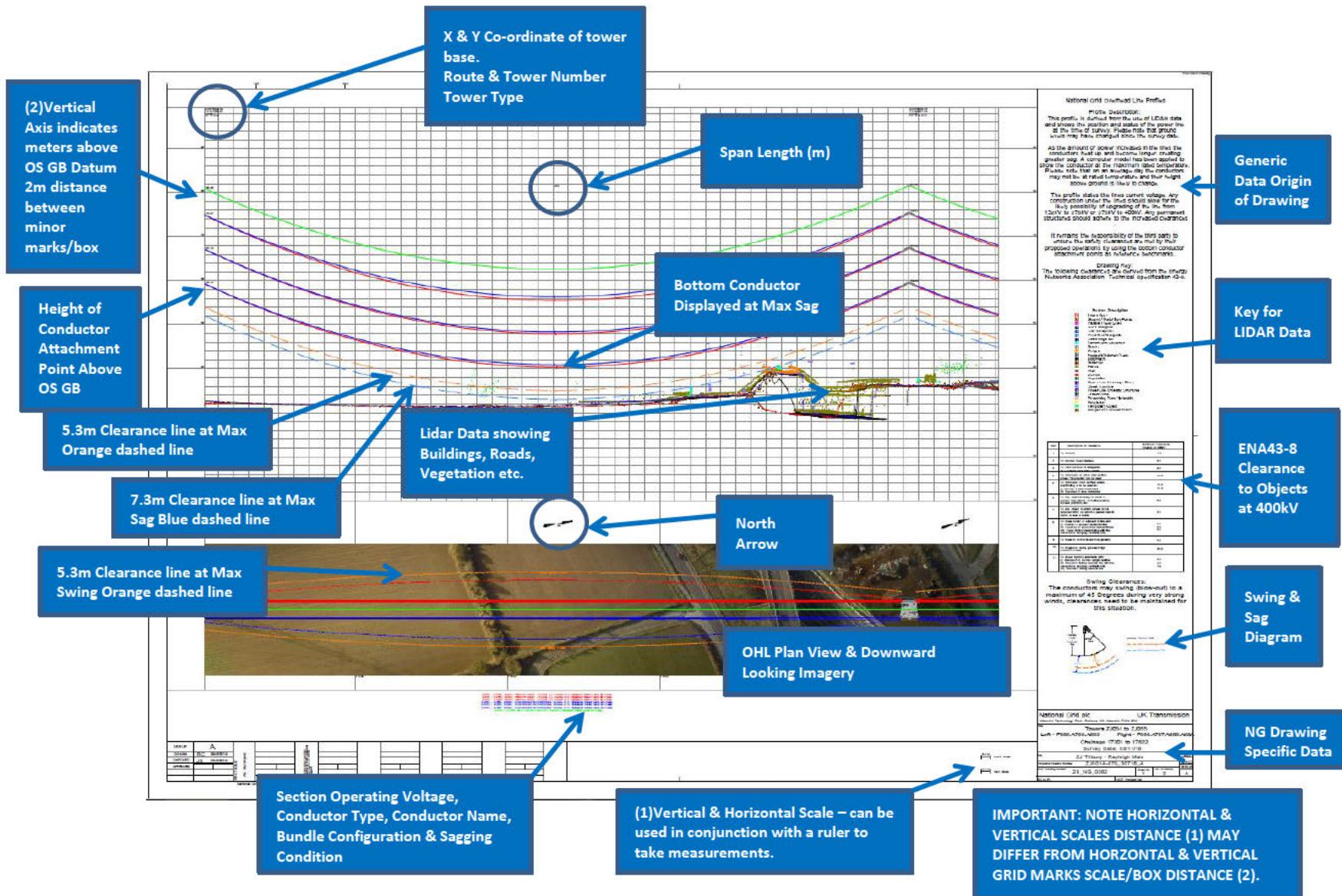
Call Asset Protection on:
0800 0014282

Opening hours:
Monday to Friday 08:00-16:00

14 APPENDIX A



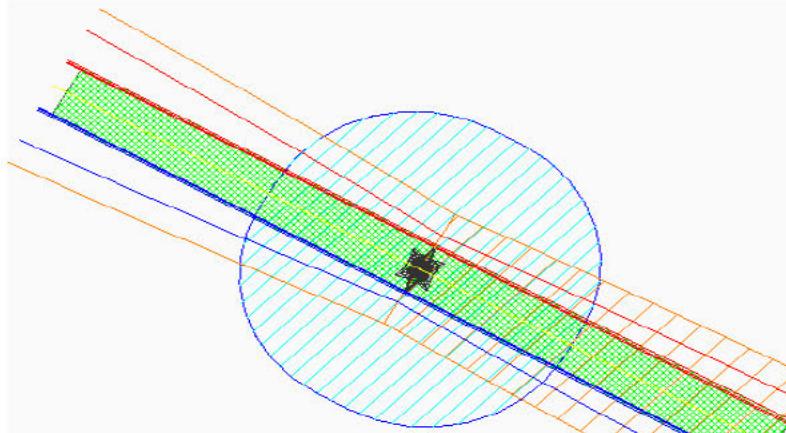
OHL Profile Drawing Guide



15 APPENDIX B



OHL Tower Stand Off & Reconductoring Area



Conductor Swing zone:

Ideally no Building or Development to take place within this zone. Any proposal shall be outside the Statutory Clearances as per ENA43.8 & not interfere with maintenance requirements.

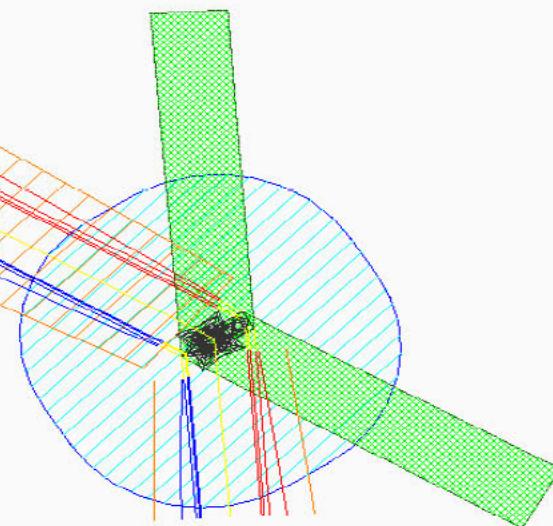
Restranging area:

2H (2x Top X-Arm height) to allow for Conductor Pulling operations at Tension towers & Catching Off conductors at Suspension towers.

(Note: 3H required for triple conductor)

Tower Maintenance area:

30m Tower Stand Off zone to allow for maintenance access & limit the potential effects of Earth Potential Rise.



Our ref: NH/25/09847

Your ref:

Leoda Solar Farm Limited

[REDACTED]
Assistant Spatial Planner

The Cube
199 Wharfside Street
Birmingham
B1 1RN

Tel: [REDACTED]

Monday 3 March 2025

Via email: LeodaSolarFarm@planninginspectorate.gov.uk

Dear Gary Chapman

Application by Leoda Solar Farm Limited (the applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development) - EIA Scoping Report for construction of a ground-mounted solar electricity generating station with a targeted gross output of 500 to 600 Megawatts (MW) and associated grid connection infrastructure, located at Land to the west of Leadenham, Welbourn and Wellingore, the east of Brant Broughton and to the north of the A17 road within North Kesteven District Council.

National Highways welcomes the opportunity to review and comment the Environmental Impact Assessment (EIA) Scoping Report regarding the forthcoming planning application for the above proposal.

National Highways has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the Strategic Road Network (SRN). It is our role to maintain the safe and efficient operation of the SRN whilst acting as a delivery partner to national economic growth.

In responding to strategic sustainable development consultations, we have regard to DfT Circular 01/2022: The Strategic Road Network and the Delivery of Sustainable Development ('the Circular'). This sets out how interactions with the Strategic Road Network should be considered in the making of plans and development management proposals. In addition to the Circular, the response set out below is also in accordance with the National Planning Policy Framework (NPPF) and other relevant policies.

As part of this application, our interest is the A1 and A46 which form part of the SRN. The nearest points of impact from the development on the SRN will be the A1 / A46 junction approximately 10km west of the proposed development.

National Highways has outlined below both the general and specific matters that we would wish to see considered as part of the Environmental Impact Assessment (EIA).

General aspects to be considered in all cases include

- We acknowledge that you will prepare a Transport Assessment (TA), a Construction Worker Travel Plan (CWTP), and a Construction Traffic Management Plan (CTMP) in support of the forthcoming planning application and look forward to receiving these for review.
- An assessment of transport-related impacts of the proposal should be carried out and reported as described in the Department for Transport's 'Guidance on Transport Assessment (GTA)' and DfT Circular 01/2022. Although the GTA guidance has been archived, it still provides a good practice guide in preparing a TA. In addition, the Department for Levelling Up, Housing, Communities and Local Government also provides guidance on preparing TAs.
- Environmental impact arising from any disruption during construction, traffic volume, composition or routing change and transport infrastructure modification should be fully assessed and reported.
- Adverse changes to noise and air quality should be considered, in relation to compliance with the Air Quality Standard Regulations, EU Exit regulations, and/or in local authority designated Air Quality Management Areas (AQMAs).

Site-Specific considerations

Following a review of the EIA Scoping Report, we have set out our comments below.

- We acknowledge that baseline traffic flows for the Base Year (2025) will be calculated from ATCs and surveys in the vicinity of the Scheme. We welcome that the developer will engage with National Highways to determine the extent of traffic data to be collected and on the scope of surveys to be undertaken. We recommend that the traffic data collected from the surveys is collected in a neutral period. We look forward to receiving the traffic flows for review.
- It is mentioned that collision data for the study area will be obtained and analysed within the ES. We look forward to receiving the collision data for review. As a minimum, we would require the study area to include key junctions on the SRN. We recommend that collision data for the most recent 5-year period is assessed, excluding 2020, which was subject to Covid-19 lockdowns.
- We appreciate that the highway assessment methodology has been set out within the report and note that Base Year (2025), Peak Construction Year and Opening Year are proposed. We request that the Peak Construction Year and Opening Year are confirmed in the TA.

- It is noted that the A1 and A46 will be likely routes for construction traffic, including HGVs and Abnormal Indivisible Loads (AIL). We would welcome further information on the number, frequency and routing of these movements as part of the CTMP.

Other matters

- We welcome the preparation and submission of the Construction Traffic Management Plan (CTMP) in support of the forthcoming planning submission.
- We also acknowledge that Air Quality and Noise Assessments will be included as part of the Environmental Statement. We look forward to reviewing these assessments in due course.

EIA Scoping Report Chapter 13 – Traffic and Movement

We have reviewed Chapter 13 – Traffic and Movement in the EIA, and have the following comments and observations.

Study Area

We welcome the proposal to discuss and agree the study area for highway impact assessment with National Highways given the routing of HGV and AIL (Abnormal Indivisible Load) is likely to route to the site via the A1 and A46.

Legislation, Planning Policy Context and Guidance

National Highways' approach to planning is stated in DfT's Circular 01/2022, "Strategic Road Network and the Delivery of Sustainable Development" (the Circular). The approach taken to progressing this development should align with and reference the Circular.

We note that the IEMA Guidelines for the Environmental Assessment of Traffic and Movement (Ref 13-11) will be used to examining the environmental impacts of the development in terms of traffic and movement.

Consultation

We welcome consultation with National Highways with regard to traffic and movement for agreement on scope, study area, and methodological approach.

Baseline Conditions

Scenario Testing

We note that the following scenarios will be assessed:

- Baseline (2025);
- Peak Construction Year without Scheme; and
- Year of Opening.

We welcome this approach and look forward to receiving confirmation of the peak construction year and opening year when available.

Planned Surveys

It is noted that these scenarios will be assessed using 24-hour AADT flows, AM and PM combined network peak hour flows and the development peak hour flows. ATCs will be undertaken during a neutral month to develop the 2025 baseline, and TEMPro will be used to estimate future year flows and we welcome this approach.

We also welcome the proposal to agree the location and timings of survey locations with National Highways and the Local Highway Authority.

Existing Highway Network

We note that the A1 and A46, part of the SRN, have been identified as likely routes for construction traffic (HGV and AIL). We would welcome further details on the number, routing, timing and frequency of these movements.

Potential Effects and Mitigation

We welcome further information on the impact of construction traffic on the SRN in the Transport Assessment (TA), and the proposed development of a Framework Construction Traffic Management Plan (CTMP) and a Framework Construction Worker Travel Plan (CWTP), noting that these two plans could be combined.

Operation

The maximum number of staff during operation is expected to be up to three staff on-site, with approximately 10-20 visitors per week. We welcome confirmation of these numbers in the TA.

Decommissioning

The EIA Scoping Report predicts the number of vehicle movements for decommissioning will be similar or less than during construction. We welcome confirmation of this number in the TA.

Mitigation

Subject to the extent of the impact of construction traffic on the SRN, mitigation may be required. National Highways will be able to advise on this once the results of scenario testing have been submitted to National Highways for review.

Assessment Methodology

We welcome the production and submission of a TA for review and we note the proposed contents of the TA outlined in the EIA. We would recommend confirmation of the TA's contents and the assessment methodology with National Highways before it is produced to avoid abortive work.

Summary

Please note that these comments imply no pre-determined view of the acceptability of the proposed development in terms of traffic, environmental, or highway considerations.

These comments relate specifically to matters arising from National Highways' responsibilities to manage and maintain the Strategic Road Network (SRN) in England, in line with DfT's Circular 01/2022 to support sustainable delivery of growth. For comments related to the local road network, please consult the appropriate local highway authority. The Local Planning Authority will determine the final scope of the Environmental Statement.

Please do not hesitate to contact me if you require any further information or clarification.

If I can be of any further assistance on this matter, please do not hesitate in contacting me.

[REDACTED] Yours sincerely,

[REDACTED]
Midlands Operations Directorate
Email: [REDACTED] @nationalhighways.co.uk

From: [NATS Safeguarding](#)
To: [Leoda Solar Farm](#)
Subject: RE: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation [SG38864]
Date: 07 February 2025 08:57:14
Attachments: [~WRD0000.jpg](#)
[image003.png](#)
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[image008.png](#)
[image009.png](#)
[image010.png](#)

You don't often get email from natssafeguarding@nats.co.uk. [Learn why this is important](#)

Our Ref: SG38864

Dear Sir/Madam

The proposed development has been examined from a technical safeguarding aspect and does not conflict with our safeguarding criteria. Accordingly, NATS (En Route) Public Limited Company ("NERL") has no safeguarding objection to the proposal.

However, please be aware that this response applies specifically to the above consultation and only reflects the position of NATS (that is responsible for the management of en route air traffic) based on the information supplied at the time of this application. This letter does not provide any indication of the position of any other party, whether they be an airport, airspace user or otherwise. It remains your responsibility to ensure that all the appropriate consultees are properly consulted.

If any changes are proposed to the information supplied to NATS in regard to this application which become the basis of a revised, amended or further application for approval, then as a statutory consultee NERL requires that it be further consulted on any such changes prior to any planning permission or any consent being granted.

Yours faithfully



NATS Safeguarding

E: natssafeguarding@nats.co.uk

4000 Parkway, Whiteley,

Fareham, Hants PO15 7FL

www.nats.co.uk



NATS Internal

From: Leoda Solar Farm
Sent: 03 February 2025 14:44
To: Leoda Solar Farm
Subject: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation

Your attachments have been security checked by Mimecast Attachment Protection. Files where no threat or malware was detected are attached.

Dear Sir/Madam

Please see attached correspondence on the proposed **Leoda Solar Farm**.

The Applicant for the Proposed Development intends to make an application for Development Consent under the Planning Act 2008. The Applicant has sought a Scoping Opinion from the Planning Inspectorate, on behalf of the Secretary of State, as to the scope and level of detail of the information to be provided within the Environmental Statement that will accompany its

Date: 24 February 2025
Our ref: 501623
Your ref: EN011016



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Consultations
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Crewe Business Park
Electra Way
Crewe
Cheshire
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T 0300 060 900

BY EMAIL ONLY

Dear Sir / Madam

Environmental Impact Assessment Scoping Consultation under Regulation 10 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulation 11

Proposal: EIA Scoping Opinion for Leoda Solar Farm
Location: Land at Welbourn, Lincoln, Lincolnshire

Thank you for seeking our advice on the scope of the Environmental Statement (ES) in the consultation dated 03 February 2025, received on 03 February 2025.

Natural England is a non-departmental public body. Our statutory purpose is to ensure that the natural environment is conserved, enhanced, and managed for the benefit of present and future generations, thereby contributing to sustainable development.

A robust assessment of environmental impacts and opportunities, based on relevant and up to date environmental information, should be undertaken prior to an application for a Development Consent Order (DCO). Annex A to this letter provides Natural England's advice on the scope of the Environmental Impact Assessment (EIA) for the proposed development.

To date, Natural England have not been engaged with the project during the pre-application stages. As such, our advice at this stage is limited, and based upon the information set out within the EIA Scoping Report. Should the Applicant wish to consult with Natural England further during the Pre-Application period, we would be happy to engage via our [Discretionary Advice Service](#).

For any further advice on this consultation please contact consultations@naturalengland.org.uk.

Yours faithfully

[REDACTED]
NSIP Senior Officer
East Midlands Area Team

Annex A – Natural England’s Advice on EIA Scoping

1. General principles

Regulation 11 of the Infrastructure Planning Regulations 2017 - (The EIA Regulations) sets out the information that should be included in an ES to assess impacts on the natural environment. This includes:

- A description of the development – including physical characteristics and the full land use requirements of the site during construction and operational phases
- Appropriately scaled and referenced plans which clearly show the information and features associated with the development
- An assessment of alternatives and clear reasoning as to why the preferred option has been chosen
- A description of the aspects and matters requested to be scoped out of further assessment with adequate justification provided¹.
- Expected residues and emissions (water, air and soil pollution, noise, vibration, light, heat, radiation etc.) resulting from the operation of the proposed development
- A description of the aspects of the environment likely to be significantly affected by the development including biodiversity (for example fauna and flora), land, including land take, soil, water, air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), cultural heritage and landscape and the interrelationship between the above factors
- A description of the likely significant effects of the development on the environment – this should cover direct effects but also any indirect, secondary, cumulative, short, medium, and long term, permanent and temporary, positive, and negative effects. Effects should relate to the existence of the development, the use of natural resources (in particular land, soil, water and biodiversity) and the emissions from pollutants. This should also include a description of the forecasting methods to predict the likely effects on the environment
- A description of the measures envisaged to prevent, reduce and where possible offset any significant adverse effects on the environment
- An outline of the structure of the proposed ES

Natural England have not been engaged with the project up until this point, however, based on the EIA Scoping Report provided, it appears that these principles are likely to be met.

2. Cumulative and in-combination effects

The ES should fully consider the implications of the whole development proposal. This should include an assessment of all supporting infrastructure.

An impact assessment should identify, describe, and evaluate the effects that are likely to result from the project in combination with other projects and activities that are being, have been or will be carried out. The following types of projects should be included in such an assessment (subject to available information):

- a. existing completed projects;
- b. approved but uncompleted projects;
- c. ongoing activities;
- d. plans or projects for which an application has been made and which are under consideration by the consenting authorities; and
- e. plans and projects which are reasonably foreseeable, i.e. projects for which an application has not yet been submitted, but which are likely to progress before

completion of the development and for which sufficient information is available to assess the likelihood of cumulative and in-combination effects.

Table 1: Plans or projects that Natural England is aware of that might need to be considered in the ES

Project/Plan	Status
Springwell Solar Farm	Plans or projects for which an application has been made and which are under consideration by the consenting authorities
North Humber to High Marnham Electricity Transmission	Plans and projects which are reasonably foreseeable
Cottam Solar	Approved but uncompleted projects
West Burton	Approved but uncompleted projects
Great North Road Solar Project	Plans and projects which are reasonably foreseeable
Gate Burton	Plans or projects for which an application has been made and which are under consideration by the consenting authorities
Tillbridge Solar Farm	Plans or projects for which an application has been made and which are under consideration by the consenting authorities
One Earth Solar	Plans and projects which are reasonably foreseeable
Steeple Renewables	Plans and projects which are reasonably foreseeable
Fosse Green Solar	Plans and projects which are reasonably foreseeable

3. Environmental data

Natural England is required to make available information it holds where requested to do so. National datasets held by Natural England are available at <http://www.naturalengland.org.uk/publications/data/default.aspx>.

Detailed information on the natural environment is available at www.magic.gov.uk. This includes Marine Conservation Zone GIS shapefiles.

Natural England's SSSI Impact Risk Zones are a GIS dataset which can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](http://www.magic.gov.uk).

Natural England does not hold local information on local sites, local landscape character, priority habitats and species or protected species. Local environmental data should be obtained from the appropriate local bodies. This may include the local environmental records centre, the local wildlife trust, local geo-conservation group or other recording society.

4. Designated nature conservation sites

International and European sites

The ES should thoroughly assess the potential for the proposal to affect internationally designated sites of nature conservation importance / European sites. This includes Special Protection Areas (SPA), Special Areas of Conservation (SAC), listed Ramsar sites, candidate SAC and proposed SPA.

Article 6 (3) of the Habitats Directive requires an appropriate assessment where a plan or project is likely to have a significant effect upon a European Site, either individually or in combination with other plans or projects.

Section 8.5.3 of the EIA Scoping Report notes that there are no internationally designated sites within 10km of the Site or within 20km and 30km of which birds and bats respectively are a qualifying feature. The report concludes no potential impacts from the proposed scheme to European Sites. Natural England agrees with this conclusion.

Nationally designated sites - Sites of Special Scientific Interest

Sites of Special Scientific Interest (SSSI) are protected under the Wildlife and Countryside Act 1981 (as amended). Further information on the SSSI and its special interest features can be found at www.magic.gov.uk.

Natural England's SSSI Impact Risk Zones can be used to help identify the potential for the development to impact on a SSSI. The dataset and user guidance can be accessed from the [Natural England Open Data Geoportal](#).

The EIA Scoping report notes High Dyke SSSI is within 5km of the proposed project. However, as noted, the proposed scheme is unlikely to have any impacts to the SSSI and its designated features from analysis of the Impact Risk Zones. Natural England agree with this conclusion.

Marine Conservation Zones

There are no Marine Conservation Zones impacted by the proposed scheme.

5. Regionally and Locally Important Sites

The ES should consider any impacts upon local wildlife and geological sites, including local nature reserves. Local Sites are identified by the local wildlife trust, geo-conservation group or other local group and protected under the NPPF (para 180). The ES should set out proposals for mitigation of any impacts and if appropriate, compensation measures and opportunities for enhancement and improving connectivity with wider ecological networks. Contact the relevant local body for further information.

Natural England welcome the inclusion of Local Nature Conservation Sites within the EIA Scoping Report.

6. Protected species

The ES should assess the impact of all phases of the proposal on protected species (including, for example, great crested newts, reptiles, birds, water voles, badgers and bats). Natural England does not hold comprehensive information regarding the locations of species protected by law. Records of protected species should be obtained from appropriate local biological record centres, nature conservation organisations and local groups. Consideration should be given to the wider context of the site, for example in terms of habitat linkages and protected species populations in the wider area.

The area likely to be affected by the development should be thoroughly surveyed by competent ecologists at appropriate times of year for relevant species and the survey results, impact assessments and appropriate accompanying mitigation strategies included as part of the ES. Surveys should always be carried out in optimal survey time periods and to current guidance by suitably qualified and, where necessary, licensed, consultants.

Natural England will not make detailed comments on Protected Species elements of this project. Natural England has adopted [standing advice](#) for protected species, which includes guidance on survey and mitigation measures. Applicants should check to see if a mitigation licence is required using NE guidance on licencing [NE wildlife licences](#). Natural England are unable to advise upon the need for a licence; this responsibility falls to the developer.

Where licence need is identified, applicants should also make use of Natural England's charged [Pre Submission Screening Service](#), during the pre-application stages, for a review of a draft wildlife licence application. Through this service Natural England will review a full draft licence application to issue a Letter of No Impediment (LONI) which explains that based on the information reviewed to date, that it sees no impediment to a licence being granted in the future should the DCO be issued. This is done to give the Planning Inspectorate confidence to make a recommendation to the relevant Secretary of State in granting a DCO. [Advice Note Eleven, Annex C – Natural England and the Planning Inspectorate | National Infrastructure Planning](#) contains details of the LONI process.

7. Priority Habitats and Species

Priority Habitats and Species are of particular importance for nature conservation and included in the England Biodiversity List published under section 41 of the Natural Environment and Rural Communities Act 2006. Most priority habitats will be mapped either as Sites of Special Scientific Interest, on the Magic website or as Local Wildlife Sites. Lists of priority habitats and species can be found [here](#). Natural England does not routinely hold species data. Such data should be collected when impacts on priority habitats or species are considered likely.

Consideration should also be given to the potential environmental value of brownfield sites, often found in urban areas and former industrial land. Sites can be checked against the (draft) national Open Mosaic Habitat (OMH) inventory published by Natural England and freely available to [download](#). Further information is also available [here](#).

An appropriate level habitat survey should be carried out on the site, to identify any important habitats present. In addition, ornithological, botanical, and invertebrate surveys should be carried out at appropriate times in the year, to establish whether any scarce or priority species are present.

The ES should include details of:

- Any historical data for the site affected by the proposal (e.g. from previous surveys)
- Additional surveys carried out as part of this proposal
- The habitats and species present
- The status of these habitats and species (e.g. whether priority species or habitat)
- The direct and indirect effects of the development upon those habitats and species
- Full details of any mitigation or compensation measures
- Opportunities for biodiversity net gain or other environmental enhancement

8. Ancient Woodland, ancient and veteran trees

Ancient woodland is an irreplaceable habitat of great importance for its wildlife, its history, and the contribution it makes to our diverse landscapes. Paragraph 186 of the National Planning Policy Framework (NPPF) sets out the highest level of protection for irreplaceable habitats and development should be refused unless there are wholly exceptional reasons, and a suitable compensation strategy exists. This is reflected in NPS EN-1 paragraphs 5.4.14-15.

An area of Ancient woodland has been identified within the search area for the project. The ES should assess the impacts of the proposal on any ancient woodland or ancient and veteran trees, with the scope to avoid and mitigate for adverse impacts. It should also consider opportunities for enhancement. Natural England and the Forestry Commission have prepared [standing advice](#) on ancient woodland, ancient and veteran trees.

Natural England maintains the [Ancient Woodland Inventory](#) which can help identify ancient woodland. The [wood pasture and parkland inventory](#) sets out information on wood pasture and parkland. The [ancient tree inventory](#) provides information on the location of ancient and veteran trees.

9. Biodiversity net gain

The Environment Act 2021 includes NSIPs in the requirement for Biodiversity Net Gain (BNG), with the biodiversity gain objective for NSIPs defined as at least a 10% increase in the pre-development biodiversity value of the on-site habitat. It is the intention that BNG should apply to all terrestrial NSIPs accepted for examination from November 2025.

The EIA Scoping report section 8.6.5 states that measures to enhance the overall biodiversity of the site will be implemented, however, no target for biodiversity net gain delivery is provided other than to meet the mandate for 10%. Natural England advise that the project should include a commitment to at least 10% Biodiversity Net Gain, as is the intention of the Environment Act. Ideally, the opportunity provided by the application should enable delivery of significantly more than this 10%. We welcome reference to the Statutory Biodiversity Metric. Natural England advise that the Statutory Biodiversity Metric should be used to calculate the biodiversity impact of the development.

Biodiversity Net Gain outcomes can be achieved on-site, off-site or through a combination of both, however, on-site provision should be considered first.

In order to maximise nature recovery and target habitat enhancement where it will have the greatest local benefit it is recommended that locally identified opportunities should be acknowledged and incorporated into the design of BNG (both on and off-site). This should include any locally mapped ecological networks and priority habitats identified within and close to the development site. Natural England recommend consultation with any local bodies, who may be able to provide invaluable local knowledge to help steer the mitigation and enhancement proposed at the site.

In addition, Local Nature Recovery Strategies (LNRS) are a new mandatory system of spatial strategies for nature established by the Environment Act 2021 which will contribute to the national Nature Recovery Network (NRN). Work is currently underway to develop these strategies, which will identify strategic priorities for nature protection, recovery, and enhancement. Given the size and scale of the project, there are opportunities not only for enhancing biodiversity in the locality, but also to create and enhance ecological connectivity in the area, contributing to the Nature Recovery Network and climate change resilience.

10. Landscape

Nationally protected landscapes

The development site is not within or likely to impact on any nationally protected landscapes.

Landscape and visual impacts

The environmental assessment should refer to the relevant [National Character Areas](#). Character area profiles set out descriptions of each landscape area and statements of environmental opportunity.

Whilst Natural England will not usually make comments on local landscape impacts, the EIA should include a full assessment of the potential impacts of the development on local landscape character using [landscape assessment methodologies](#). We encourage the use of Landscape Character Assessment (LCA), based on the good practice guidelines produced

jointly by the Landscape Institute and Institute of Environmental Assessment in 2013. LCA provides a sound basis for guiding, informing, and understanding the ability of any location to accommodate change and to make positive proposals for conserving, enhancing or regenerating character.

A landscape and visual impact assessment should also be carried out for the proposed development and surrounding area. Natural England recommends use of the methodology set out in *Guidelines for Landscape and Visual Impact Assessment 2013* ((3rd edition) produced by the Landscape Institute and the Institute of Environmental Assessment and Management. For National Parks and National Landscapes, we advise that the assessment also includes effects on the 'special qualities' of the designated landscape, as set out in the statutory management plan for the area. These identify the particular landscape and related characteristics which underpin the natural beauty of the area and its designation status.

The assessment should also include the cumulative effect of the development with other relevant existing or proposed developments in the area. This should include an assessment of the impacts of other proposals currently at scoping stage.

To ensure high quality development that responds to and enhances local landscape character and distinctiveness, the siting and design of the proposed development should reflect local characteristics and, wherever possible, use local materials. Account should be taken of local design policies, design codes and guides as well as guidance in the [National Design Guide](#) and [National Model Design Code](#). The ES should set out the measures to be taken to ensure the development will deliver high standards of design and green infrastructure. It should also set out detail of layout alternatives, where appropriate, with a justification of the selected option in terms of landscape impact and benefit.

The National Infrastructure Commission has also produced Design Principles [Design Principles for National Infrastructure - NIC](#) endorsed by Government in the National Infrastructure Strategy.

11. Connecting people with nature

The EIA Scoping Report section 13.5.15 notes that there are a number of Public Right of Way within the development site. The ES should consider potential impacts on access land, common land and public rights of way in line with NPPF paragraph 104 and NPS EN-1 paras 5.11.24 & 5.11.30. It should assess the scope to mitigate for any adverse impacts. Rights of Way Improvement Plans (ROWIP) can be used to identify public rights of way within or adjacent to the proposed site that should be maintained or enhanced.

Measures to help people to better access the countryside for quiet enjoyment and opportunities to connect with nature should be considered. Such measures could include reinstating existing footpaths or the creation of new footpaths, cycleways, and bridleways. Links to other green networks and, where appropriate, urban fringe areas should also be explored to help promote the creation of wider green infrastructure. Access to nature within the development site should also be considered, including the role that natural links have in connecting habitats and providing potential pathways for movements of species.

Relevant aspects of local authority green infrastructure strategies should be incorporated where appropriate.

12. Soils and agricultural land quality

Due to the scale of the project, there is potential for significant impacts to soil functions and services and to Best and Most Versatile (BMV) agricultural land.

Soils are a valuable, finite natural resource and should also be considered for the ecosystem services they provide, including for food production, water storage and flood mitigation, as a carbon store, reservoir of biodiversity and buffer against pollution. It is therefore important that the soil resources are protected and sustainably managed. Impacts from the development on soils and BMV agricultural land should be considered in line with paragraphs 5.168, 5.167 and 5.179 of the NPS for National Networks. Further guidance is set out in the [Natural England Guide to assessing development proposals on agricultural land](#).

Natural England would provide the following advice in relation to the ALC survey and consideration of soils and Best and Most Versatile Land within the ES:

The ALC survey should be undertaken at a detailed level (1 auger per ha) across the **entire development site, including any cable routes, mitigation areas etc**. The survey data should inform the soil management plan for the site, including suitable soil handling methods and appropriate reuse of the soil resource where required (e.g. agricultural reinstatement, habitat creation, landscaping, allotments and public open space). The aim will be to minimise soil handling and maximise the sustainable use and management of the available soil to achieve successful after-uses and minimise off-site impacts during construction, operation and decommissioning. Further information is available in the [Defra Construction Code of Practice for the Sustainable Use of Soil on Development Sites](#) and The [British Society of Soil Science Guidance Note Benefiting from Soil Management in Development and Construction](#), which Natural England consider should be followed.

The ALC survey should be used to inform the final design of the project and inform micro-siting of infrastructure such as the BESS and cabling to avoid BMV land. The ES should then set out details of how any adverse impacts on BMV agricultural land have been minimised through site design/masterplan.

Results of the ALC survey should be presented to indicate the land take (including amount of BMV land) for each element of the proposals, i.e. Solar PV areas, cable routes, access tracks, BESS/substation infrastructure and mitigation/enhancement areas. This should also include clarity regarding any agricultural land to be permanently lost.

The EIA Scoping report suggests that the project will be time limited, but no indication of the limit is given. Natural England note that it is unclear whether the DCO will specify a time limit. During the life of the proposed development, it is likely that there will be a reduction in potential agricultural production over the development area subject to the solar panel arrays and habitat enhancement. If not time limited, the areas subject to a change in land use or land management (i.e. The land under the solar arrays and the land subject to habitat enhancement) have the potential to lead to the permanent reduction in the land's potential agricultural production.

Natural England note that the Decommissioning phase is scoped out of the Environmental Statement (Table 14-4). Natural England recommend the decommissioning phase be scoped into assessment. This phase tends to be lower impact for solar farm development, however, with regard to soils and BMV land, the decommissioning phase should include reinstatement of any temporarily disturbed areas, i.e. access tracks, Battery Storage & Substation. There are risks that, without appropriate management, these activities could give risk to permanent impacts to agricultural land & Best and Most Versatile land. There should be attention given to the latter stages of project lifecycles (i.e. decommissioning), ensuring

that mechanisms for environmental mitigation, restoration and enhancement that are built in at the design stage are secured well into the future.

Natural England consider that commitment should be made through the DCO to reinstate all BMV land back to its former ALC grade, following decommissioning.

13. Climate change

The England Biodiversity Strategy published by Defra establishes principles for the consideration of biodiversity and the effects of climate change. The ES should reflect these principles and identify how the development will embed Nature Based Solutions, maintain ecological networks and build resilience to climate change. The ES should also incorporate the policies as set out in NPS EN-1 relating to climate change. The NPPF also requires that the planning system should contribute to the enhancement of the natural environment 'by establishing coherent ecological networks that are more resilient to current and future pressures' (NPPF Para 180), which should be demonstrated through the ES.



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F.A.O. [REDACTED]
EIA And Land Rights Advisor
The Planning Inspectorate
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www.newark-sherwooddc.gov.uk

Telephone: 01636 650000
Email: planning@nsdc.info

Date: 3 March 2025
Application ref: 25/00185/NPA

By email to: LeodaSolarFarm@planninginspectorate.gov.uk

Dear [REDACTED],

Planning Act 2008 (as amended) and the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) – Regulations 10 and 11

Application by Leoda Solar Farm Ltd (the applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development)

Planning Inspectorate reference: EN0110016

EIA Scoping Consultation Response

Proposal: Ground-mounted solar electricity generating station with a targeted gross output of 500 to 600 Megawatts (MW) and associated grid connection infrastructure.

Site Address: Leoda Solar Farm

We refer to the above consultation received by this Authority on 3 February 2025, which relates to the proposed installation of solar photovoltaic (PV) generating panels and associated development such as electrical equipment, cabling and on-site battery energy storage system (BESS) facilities across a proposed site that lies to the west of the village of Leadenhurst.

Following your request for a response on the EIA Scoping Report, we would offer the following observations.

In reviewing the information presented by the Applicant's EIA Scoping Report, it is noted that the Order Limits as shown in Figure 1-1 (Site Location) identify that the site lies outside of and to the east of the Newark and Sherwood District. Based on the information that is presented within the Scoping Report, it would appear that the site is approximately 4-5km away from our district.

In the circumstances, the potential for direct and adverse environmental effects on sensitive receptors within the Newark and Sherwood district is considered to be more limited. Notwithstanding this, the Council also has two major solar farm NSIPs (One Earth and Great North

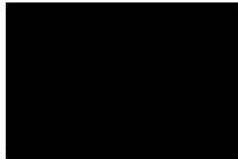
Road) within its administrative area and has particular concerns regarding the potential for cumulative effects. We note that the Scoping Report identifies at Paragraph 5.6.10 that an initial long list of projects will be identified, based on a 5km search area. We consider that given the number of current NSIP projects within the Nottinghamshire and Lincolnshire area a more appropriate approach should be undertaken that initially scopes in as a minimum all NSIP projects within neighbouring authority areas and in this case, all NSIP projects within Nottinghamshire and Lincolnshire.

We would welcome any opportunity to discuss these issues further with the Applicant to ensure that the potential for cumulative effects is considered in a thorough and robust manner, examining the potential for significant adverse effects during the construction and operational phase.

Please note that this matter has not been formally reported to the District Council's Planning Committee. In these circumstances the comments are those of an Officer of the Council under delegated power arrangements.

If you require any further assistance, please do not hesitate to contact my colleague, [REDACTED], the case officer who has dealt with this consultation, on [REDACTED].

Yours faithfully,



[REDACTED]
Business Manager Planning Development

From: [REDACTED]
To: [Leoda Solar Farm](#)
Cc: [NSIPs](#)
Subject: Norfolk County Council Comments
Date: 04 February 2025 07:33:43

You don't often get email from [REDACTED]@norfolk.gov.uk. [Learn why this is important](#)

FAO Gary Chapman

I can confirm that Norfolk County Council does not have any comments to make on the ES Report given that there are no strategic cross-boundary issues arising with Norfolk from this NSIP proposal.

Please can any further correspondence with this proposal be sent to: NSIPs NSIPs@norfolk.gov.uk

Many thanks

Stephen

Stephen Faulkner BA(Hons), MSc, DipTP, MRTPI

Principal Planner - National Infrastructure Planning Team Leader

Strategy and Transformation

Tel: [REDACTED]



Campaign Logo



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Your Ref : EN0110016
Our Ref : 25/0132/NSIP
Contact : [REDACTED]
Email [REDACTED]@n-kesteven.gov.uk



By Email to: LeodaSolarFarm@planninginspectorate.gov.uk

3 March 2025

Dear Sir/Madam

Planning Act 2008 (as amended) and The Infrastructure (Environmental Impact Assessment) Regulations 2017 (the EIA Regulations) – Regulations 10 and 11

Application by Leoda Solar Farm Limited for an Order granting Development Consent for the Leoda Solar Farm on land to the west of Leadenham, Welbourn and Wellingore, the east of Brant Broughton and to the north of the A17 road.

Thank you for your consultation request under Regulation 10(6) of the EIA Regulations. North Kesteven District Council, as a consultation body and host authority, wishes to make the following comments in regard to information to be provided with the Environmental Statement Scoping Report. The following comments are made, following the structure of the Environmental Impact Assessment Scoping Report (January 2025).

Procedural Observations

PINS Advice Note Seven 'Environmental Impact Assessment: Process, Preliminary Environmental Information and Environmental Statements' provides guidance on the EIA process. Paragraph 5.8 recommends that applicants may choose to undertake their own non-statutory consultation with the consultation bodies, or others, prior to submission of a Scoping Request to allow for refinement of options ahead of the formal request. The Council can confirm that no significant non-statutory consultation and engagement has been undertaken other than one meeting with Council officers to introduce the proposals and a recent pre-application presentation to Council members (25th January 2025). The Council has however provided comments in response to the applicant's non-statutory consultation.

The Council has a close working relationship with Lincolnshire County Council (LCC) on NSIP projects that has enabled us to share resources on this project. Please note the following shared resources on topic which are relevant to both authorities:

- Landscape – external agricultural consultants representing both authorities on soils and agriculture.
- AAH – external landscape consultants representing both authorities on landscape and visual impacts.
- LCC archaeologist – will be representing NKDC on below ground heritage matters.

We can provide the following comments on each chapter of the Scoping Report:

1 Document Purpose

In addition to the references from EN-1 provided in the Scoping Report, EN-1 provides some useful guidance for the planning context facing the deliverability of the Leoda solar farm in that the application for the solar farm and the National Grid Navenby Substation (NGNS) are to be submitted under separate legislation and different timescales.

At Section 4.11, EN-1 advises that the connection of a proposed electricity generation plant to the electricity network is an important consideration for applicants wanting to construct a generation plant such as a solar farm. It envisages that '*wherever reasonably possible, applications for new generating stations and related infrastructure should be contained in a single application to the Secretary of State or in separate applications submitted in tandem which have been prepared in an integrated way, as outlined in EN-5. This is particularly encouraged to ensure development of more co-ordinated transmission overall.*' However, it also recognises that this is not always possible, and each element may be subject to a separate application.

In this respect EN-1 states '*Where this is the case, the applicant should include information on the other elements¹⁶⁰ and explain the reasons for the separate application confirming that there are no obvious reasons for why other elements are likely to be refused.*' It goes onto warn that '*the applicant accepts the implicit risks involved in doing so and must ensure they provide sufficient information to comply with the EIA Regulations including the indirect, secondary, and cumulative effects, which will encompass information on grid connections.*'

There is a made Neighbourhood Plan for the parish of Welbourn (2015). Notwithstanding the age of the document it remains part of the development plan and the proposals must have regard to it. This includes the Appendix 1 'Character Profile' and the Section 3 'Parish Projects' chapter of the Neighbourhood Plan itself. The Character Profile includes identification of key views that should be taken into account in the preparation of the ES.

2 The Scheme

At scoping stage, both fixed south facing and single axis tracker PV module mounting structures are being considered. The tracker systems typically required a greater depth of piling between 2m – 4m. In each case the maximum height would be 3.5m. Transformers and switch gear may be in standalone units or within an enclosure, and will be distributed throughout the site. The scheme will include a Battery Energy Storage System (BESS). Batteries will either be in individual enclosures or housed within a larger building or buildings. The number of enclosures is not yet known nor whether they will be located together in a 'centralised' area or spread around the site (DC-coupled or AC-coupled arrangement). An on-site grid connection substation will be provided. It will be connected to the proposed NGNS by underground cables, however, the cabling route is still being investigated through the design process. An operations and maintenance hub will be located on site. The operational area of solar PV will be enclosed by a security fence and protected by CCTV. A drainage system will be designed in accordance with the finding of the Flood Risk Assessment. Landscaping and biodiversity enhancement will be provided.

The earliest that construction would start is 2028, subject to the DCO being granted and the NGNS receiving planning permission. Construction will take 24 – 36 months over a continuous

period with operation anticipated to commence in 2030. The site construction access is yet to be determined but likely to be taken from the A17, with both the use of local roads and / or an internal haulage road being given consideration.

It is anticipated at paragraph 2.6.2 that the lifetime of the scheme will be 40 or 60 years. Decommissioning is expected to take between 12-24 months. The Leoda Solar Farm is reliant upon the National Grid constructing a new substation at Navenby (NGNS) to enable a point of connection to be made to the National Electricity Transmission System. Currently, this project is at an early stage with public consultation only having been carried out in September - October 2024. An EIA screening opinion has been obtained from the Council which concluded that an ES would be required for the project (15 October 2024). No scoping request has been made to the Council as yet.

The National Grid website ([Navenby Substation | National Grid ET](#)) currently indicates that a planning application to the Council (under the Town and Country Planning Act 1990) will be submitted by Autumn 2025 and determined by Spring 2026. In addition, National Grid have confirmed the need to carry out overhead line works under s37 of the Electricity Act 1989 which will be determined by the Secretary of State for Energy Security and Net Zero. It envisages that, subject to approval, construction would start by mid-late 2026. The construction of the four new pylons would take place by spring / summer 2028 and the substation construction would be completed by late 2029.

The Council has further concerns regards the potential impact of delays to the National Grid timetable with regard to the planning process. The Council has concerns that the NGNS is locally controversial, that a planning permission cannot be guaranteed and therefore (on a without prejudice basis) there is a need to account for timescales associated with the appeal process and any potential risk of legal challenge/JR. Whilst the developer may have secured a grid connection, the NGNS cannot be delivered until a planning permission first has been secured and post-decision conditions discharge been undertaken. As such the applicant should evidence that there are no obvious reasons why the NGNS application will not be refused (as per Section 4.11 EN-1 quoted above under Chapter 1). In the Council's view, this remains uncertain at this stage but we appreciate that the NGNS planning application process is at an early stage and will develop over the course of 2025.

Any delays in grid connection would reduce the potential benefits of the solar farm providing renewable energy before the government's target date of 2030 (the Clean Power 2030 Action Plan was published on 13 December 2024 and sets out a pathway to a clean power system) and thus may impact on the planning balance. In addition, the reliability of supporting evidence that is time limited, such as ecological surveys, will reduce and undermine the impacts assessed in the solar farm ES.

EN-3 advises that solar farms typically have an upper limit of 40-year lifespan (para 2.10.65). The guidance also states that the period of time that the applicant is proposing to operate a solar farm will be an important matter for the SOS to consider. If it is anticipated that the solar farm will have a proposed operational life of 60 years, the ES should provide further details on the likely impacts of the extended lifespan that is proposed for this project, as well as the extent to which the site will return to its original state, when assessing impacts such as landscape and visual impacts, potential effects on the setting of designated heritage assets and whether impacts on BMV land are 'temporary' and 'reversible'. In the Council's opinion, a 60-year

lifespan is stretching the definition of a ‘temporary’ use, particularly in respect of the loss of agricultural land over this period.

The ES should specify measures for early decommissioning of the solar farm in the event of early cessation of energy generation including the timescales and long stop periods for early decommissioning commencing. This should take into consideration force majeure events including downtime, accidents/operations issues etc at the NGNS or other third-party infrastructure on which the solar farm relies. The applicant is referred to the Heckington Fen ‘Outline Decommissioning and Restoration Plan’ (February 2024, PINS ref: REP5-058) as an example of the triggers and remedial measures to be engaged should there be a cessation of energy production.

The indicative site plan suggests two cable corridor options at this stage but with insufficient detail to identify local constraints. However, the route is anticipated to cross the A607 between Wellingore and Welbourn and will, regardless of the final option, pass through the Lincoln Cliff Area of Great Landscape Value (AGLV). The comments below on the Landscape chapter are relevant to the high sensitivity of this landscape.

3 Alternatives Considered

The Scoping Report does not specifically mention whether the applicant has considered alternative sites although at paragraph 3.1.1, it does refer to ‘location’ as part of the considerations listed in the EIA Regulations. The Council expects that alternative sites are considered within the ES.

The proposals rely on a new electricity substation to be built by the National Grid which has not yet received planning permission. The Council expects that the ES will explore whether capacity was available at other existing substations in Lincolnshire prior to the decision to apply to the National Grid for a new connection and thus lead to the requirement for a new substation to be provided. Reference should be made to alternative sites and the degree to which environmental or other constraints were factored into the search parameters to identify or potentially rule out what those alternatives were.

To evidence the alternative site selection process, the applicant should provide confirmation via correspondence from the National Grid that a connection into all existing substations in Lincolnshire was not possible within the development framework suggested as part of the ES.

In line with EN-3 paragraph 2.10.29, ‘the applicant should, where possible utilised suitable previously developed land, brownfield land, contaminated land and industrial land. Where the proposed use of any agricultural land has been shown to be necessary, poorer quality land should be preferred to higher quality land avoiding the use of BMV agricultural land where possible’.

In this context, the Council would encourage the applicant to seek to reduce, remove and avoid the use of BMV land as part of the final design evolution consistent with the above advice.

Whilst flood risk is not a matter set out in the key factors influencing site selection and design listed in EN-3, these are not exclusive as considerations specific to individual projects should be taken into account. For this project, flood risk is an important consideration given the close proximity to main rivers prone to flooding. EN-1, at section 5.8, sets out detailed guidance on flood risk and reiterates the principles of the NPPF to development and flooding.

It reiterates the purpose of the sequential test to steer new development to areas with the lowest risk of flooding and where it is not possible to locate development in low-risk areas, then the test should compare sites in medium-risk areas and then in high-risk areas. Clearly, this important policy test is a relevant consideration in the site selection process.

4 Consultation

The Council would welcome discussion with the applicant over the consultation process via regular liaison meetings and topic specific meetings, and to input into the Statement of Community Consultation.

5 EIA Methodology

The EIA methodology is considered to be reasonable overall.

The ES should make clear which elements are temporary and permanent, together with indicative timescales for all temporary works. Please see comments below in relation to the permanent irreversible loss of agricultural land through the permanent sealing of land by development.

The timeframe for a 40-60 year operational duration should be clarified as a 60 year duration rather exceeds the accepted definition of a temporary use. This will have significant knock on effects for the assessments made in the ES based if they are classed as 'temporary effects' which may lead to an underplaying of effects that will be in place for a time period that is more akin to a 'permanent effect'. A 60-year duration will need to incorporate any environmental impacts from the partial or wholesale replacement of solar panels and larger associated equipment that should form part of the ES.

The Council will need to agree the schedule of long and short list TCPA and NSIP projects which must be considered in relation to cumulative effects. This should include, as a minimum, specific environmental chapter / topic areas associated with all registered NSIP projects in the District, the NGNS, freestanding BESS proposals (subject to planning applications or EIA screening/scoping processes) and applicable solar farms submitted through the TCPA. Other NSIP projects outside/on the Lincolnshire County borders may also need to be within scope eg A46 Newark Bypass (PINS ref: TR010065). The NGNS should be included as a scheme on the Short List of Cumulative Effects given that it is intrinsic to solar development proceeding in this location as has been done in the Springwell Solar Farm ES (PINS ref: EN010149).

6 Climate Change

The Council is satisfied with the proposed methodology. It would be useful to consider the following aspects:

- Cumulative impacts from multiple solar farm installations within the vicinity/district.
- Consideration of carbon sequestration and work to improve soil structure during the lifespan of the development.
- Reference to the NKDC, not City of Lincoln, Declaration and Climate Action Plan.

7 Cultural Heritage

The Council makes the following points in relation to above ground cultural heritage.

- The Council disagrees with the suggested study area at paragraph 7.2.4 namely for non-designated assets extending to a distance of 1km from the Site boundary, and 3km in the case of designated heritage assets. We would suggest that the minimum study area of 5km is adopted for both designated and non-designated heritage assets and note that PINS have adopted a 5km study area for other solar NSIP projects in the District.
- With reference to paragraph 7.2.5, it is unclear what is meant a 'flexible approach will be taken to the identification of high-value assets' on which there may be an impact upon setting, up to 5km from the site boundary. As above, we consider that a minimum of 5km should be adopted for all heritage assets however there might be designated heritage assets outside of the study boundary which require individual consideration/agreement.
- The section under 'Local Planning Policy' does not reference the adopted Conservation Area appraisal for Welbourn, or the adopted boundaries of other nearby conservation areas.
- Paragraph 7.5.15 refers to non-designated heritage assets, however, it does not refer to the Council's Local List. It should be fully considered, as should the Council's adopted criteria which can be found on our website via the link: [Local List of Non-Designated Heritage Assets | North Kesteven District Council](#). These are available from the Council by email to planning@n-kesteven.gov.uk.
- The list at paragraph 7.6.4 should include the Brant Broughton Conservation Area at least.
- Table 7-1 references criteria for assessing the value of heritage assets. It differentiates between 'conservation areas' and 'conservation areas of demonstratable high value'. However, there is no such differentiation in the Planning (Listed Buildings and Conservation Areas) Act 1990 nor in the appraisals and management plans adopted by the Council and there is no reference in the scoping report as to how this will be applied. As such we favour that all conservation areas are placed in the 'high' asset value category.

The applicant is advised that the Council is in the process of reviewing the boundaries of Leadenham and Brant Broughton Conservation Areas and is preparing associated Appraisals and Management Plans. As a minimum these are likely to be in draft form at the point of any DCO submission and arguably therefore should carry a degree of weight. The applicant is advised to maintain dialogue with the Council as to the progress of these documents.

The Council has already set out a number of concerns on heritage grounds through its non-statutory consultation response to the applicant. The content will not be repeated here suffice to summarise that from the Council's perspective it is self-evident that, even from the indicative layout suggested, there will be a degree of harm to the setting, significance, character and appearance (potentially at varying scales) to heritage assets comprising as a minimum the three Conservation Areas at Welbourn, Leadenham and Brant Broughton and the churches of Grade I St Chad's and St Helens (both Grade I listed).

This is in part due to physical proximity to the proposed development site but also owing to the relative landscape prominence of those assets in elevated vantage points from the Lincoln Cliff AGLV. Entirely without prejudice to the Council's position, the ES should include a Conservation Management Plan (CMP) by way of mitigation and to assist the application of the public benefit test. We advise that this might have a financial element requiring a s106 Agreement.

The Council defers to the views of LCC's archaeological officer in respect of the proposed approach to below ground cultural heritage as attached. In summary, their comments require the full suite of comprehensive desk-based research, non-intrusive surveys, and intrusive field evaluation by trenching for the full extent of proposed impact. The results should be used to minimise the impact on the historic environment through informing the project design and to provide the basis for a fit for purpose site-specific mitigation strategy to adequately deal with the impacts of this development upon currently surviving archaeology.

8 Ecology and Nature Conservation

In terms of the completeness of the desktop survey the Council has no concerns or with what is proposed to be "scoped in" to further surveys.

The applicant should be aware that parts of the red line boundary overlap the Council's Biodiversity Opportunity Mapping (BOM) areas (which can be found via the Interactive Local Plan Map found on the Central Lincolnshire Local Plan (CLLP) website). This land falls within the priority zone for wetland creation and should be reflected in the ES. Areas that fall within the BOM and habitats within those areas that are associated with wetlands must be considered strategically significant and retained and where possible enhanced. Habitat creation in these areas should also prioritise creation of wetland/standing water habitat within a wider mosaic. BOM definitions will be superseded (likely 2026) by the Local Nature Recovery Strategy

As noted in the Scoping Report, there are a high number of non-statutory wildlife sites in the area with many consisting of calcareous grassland habitat. This is in line with the onshore geology mapping that identifies the area as being high in calcium carbonate. As a result, grassland surveys must be conducted during optimum survey season and where calcareous grasslands are identified they must be avoided/retained and if possible enhanced.

The site will likely impact on a number of badger communities as badger setts have been identified in the Scoping Report. Mapping of their ranges and frequently used roots should be completed so that 2-way badger gates can be effectively installed within any security fencing. Where there is evidence such as on-site territorial latrines but indication that the setts are off-site, key traversal routes should still be recorded. Where potential foraging habitat is to be lost, compensatory planting should be provided within the given territory

Where watercourses exist on site they should be enhanced with consideration to the 3d buffer model approach and to enhance opportunities for riparian mammals. I would also expect a commitment to work alongside GLNP's Operation Water Vole to support in mink control efforts.

Regionally we have cumulative impacts on ground nesting/farmland birds. Territories and breeding pairs for these should be identified with appropriate mitigation and enhancement proposed. Such mitigations are provided off-site they will need to be appropriately secured.

The survey range of habitat within 250m is appropriate. Where great crested newt (GCN) are identified, habitat within control of the development, up to a 500m range, should be managed to benefit GCN populations.

It is stated that UKHab surveys have begun but no breakdown of what habitats have been identified has been provided. Given the satellite imagery it is safe to assume much of the habitat will be arable. Where arable field margins are identified these must be appropriately recorded at baseline, given the definition of arable field margins they are unlikely to be retainable once land

use changes and as such compensation via higher distinctiveness habitat will be required. The Living England habitat map also suggest small parcels of woodland, bog/marsh/swamp, more biodiverse grasslands, modified grasslands but majority being arable. Subsequent designs will have to adhere to the biodiversity gain hierarchy so areas that are not arable or poorer condition modified grasslands should be retained and enhanced and effort taken to increase connectivity.

As with most solar projects it is likely that significant gains in biodiversity could be achieved on site, as calculated using the Biodiversity Metric. In line with CLLP Policy S14 'Renewable Energy', the Council expects solar developments to evidence how opportunities for delivering biodiversity net gain have been maximised taking account of soil, natural features, existing habitats, and planting proposals and to create new habitats linking into the emerging Local Nature Recovery Strategy. We expect the scheme to deliver significantly in excess of 10% BNG.

The method of managing the land below solar PV panels should be provided eg sheep grazing or other. If management is not to be proposed below the solar PV panels, the Council will only accept that a 'modified grassland in poor condition' habitat definition could be achieved at the most. Any variation from this should have significant justification with reference to Solar Energy UK and wider academic research to justify the necessary management to achieve high distinctiveness/condition outcomes. Grasslands not under panels should include steps to strip nutrients and in areas where ground conditions would suggest calcareous grassland creation is possible, we may be willing to accept a precautionary aim of other neutral grassland but with management aims and seed mix (containing calcareous indicator species) to achieve calcareous grassland over the 30 year period.

To satisfy the NPPF requirements for enhancements outside of BNG (mainly faunal enhancements) we will expect to see steps taken to improve opportunities for wildlife. This could include creation of beetle banks, hibernacula, dead wood features etc. Where these fall within a managed habitat we would expect these to also be secured within a required Habitat Management and Monitoring plan.

A s106 to secure all significant onsite ecological gains and a monitoring fee (including BNG) would also be required to review submitted monitoring reports and conduct quality assurance site visits by the Council as it is anticipated that it would be the Relevant Authority responsible for discharging the Requirement related to biodiversity provision and management. This may also include the formation of an Ecological Steering Group, in conjunction with LCC, as a recently developed means of ensuring satisfactory monitoring that is being brought forward in Lincolnshire.

We would be open to discussion for areas identified as strategically significant and contributing to the wider ecological network to be registered on the National Biodiversity Gain Site Register to allow allocation/sale to other developments. Such permissible would be subject to a % criteria of BNG being met/delivered to ensure no underdeliver of the project as a whole. The agreement to sell/allocate units may also required a % scaled payment (based on statutory credit costs) for every unit allocated/sold to be added to a wider nature recovery fund which will be used to support a range of nature recovery projects within the district.

It is noted at paragraph 8.8.5 that arboricultural surveys will be undertaken to inform the design of the scheme. The Council welcomes this and would provide the following advice:

- The proposal will require a full assessment of all trees, hedgerows and other green infrastructure in order to evaluate potential adverse impact loss and mitigation. This will

require a full survey and associated constraints plan to plot RPAs and canopy spread as well as evaluation of tree species, quality.

- Once the final design is forthcoming then an arboricultural impact assessment should be carried out followed by a full protection scheme covering all aspects of the proposed scheme i.e direct and indirect impact of solar panel and BESS locations, service runs, access roads and any other associated disturbance of areas near green infrastructure.

In respect of trees and landscaping proposals, full soft landscaping details would be required in order to evaluate mitigation proposal for any losses but also BNG requirements. Robust additional soft landscaping will be required to reduce the impact of the proposals on the wider landscape. A comprehensive long term management plan for the long term provision of soft landscaping from establishment to project end should be required to ensure mitigation/screening is maintained and what measures are proposed at the noted 40 year decommissioning date.

9 Water Environment

The Council defers to the views of Lincolnshire County Council as the Local Lead Flood Authority for their views on flood risk and drainage.

There are some limited areas of the site within Flood Zone 2 and 3. It is noted that a Flood Risk Assessment (FRA), Surface Water Drainage Strategy and Water Framework Directive Assessment will be carried out. It is recommended that the FRA includes an assessment under the NPPF Sequential Test and Exception Test. The Sequential Test will require consideration of other sites potentially more suitable for solar development and the avoidance of development on land liable to flooding should be incorporated into the alternative site selection process.

The proposed site design should seek to avoid construction of fixed equipment such as the substation and BESS on land liable to flooding. If the proposed mitigation to solar PV panels involves an increase in height, this should be made clear in the ES.

10 Landscape and Visual Amenity

The Council, in a shared arrangement with LCC, have engaged AAH consultants to provide landscape and visual impact advice. Their full comments are attached to this response and should be taken into account in providing the Scoping Response.

In summary, AAH have advised that as part of the submission, we would expect the production of a Landscape and Visual chapter of the Environmental Statement (ES), which would be in the form of a Landscape and Visual Impact Assessment (LVIA), and any supporting information (such as plans or figures) reflect current best practice and guidance from, as a minimum.

Overall, we would expect that the assessment of potential Landscape and Visual matters and evolving proposals relating to Leoda Solar Farm, as a Nationally Significant Infrastructure Project (NSIP), follow an iterative process of engagement and consultation to ensure the following are not fixed at this stage and are discussed, developed and agreed at subsequent technical meetings with the applicant:

- LVIA Methodology;
- Development, and subsequent Zone of Theoretical Visibility (ZTV), parameters;
- Study Area extents (distance);
- Viewpoint quantity and locations;

- Photomontage/Accurate Visual Representations (AVRs):
 - Quantity and location;
 - Phase depiction;
 - AVR Type and Level.
- Mitigation Measures/Landscape Scheme/Site Layout;
- Cumulative effects, including surrounding developments to be considered; and
- The extent as to which a Residential Visual Amenity Assessment (RVAA) should be considered (based on the Landscape Institute TGN 2/19) if there are residential properties with receptors likely to experience significant effects to their visual amenity.

While the focus of this review is on Landscape and Visual matters, other information provided within the Scoping Report, and associated Appendices and figures, has also been considered, providing background and context to the Site. At this initial stage of the NSIP/DCO process, the content and level of information provided by the developer within *Section 10. Landscape and Visual Amenity* is generally considered satisfactory with the sources listed above covered, however, as stated previously, we would expect to discuss this content and approach as part of the iterative process. Due to the scale and extent of the Site and proposed development, we would expect there to be adverse landscape and visual effects.

The following should be considered in the evolving assessment:

Viewpoints: final locations of viewpoints are to be reviewed and agreed with LCC, NKDC and other relevant stakeholders. The final viewpoint selection should also consider views of taller and more conspicuous elements, such as battery storage or sub-stations once the layout is more developed, as well as consider potential key, or sensitive, viewpoints. We would welcome an initial discussion and subsequent workshop (on site if appropriate) with the developer's team in regards to proposed viewpoints.

Photomontages: to gain an understanding of the visibility of the development and how the panels and infrastructure would appear in the surrounding landscape, Photomontages/AVRs should be produced. The number and location of the agreed viewpoints to be developed as Photomontages/AVRs should be agreed with LCC/NKDC and other relevant stakeholders and produced in accordance with *TGN 06/19 Visual Representation of Development Proposals*.

Methodology: The methodology provided at Section 10.7 is typical of those used for ES Chapters and standalone LVIA where potential significant effects are considered, and reflects the guidance in GLVIA3. We would request that the most up to date technical guidance be used and a detailed methodology is provided to allow for further interrogation at the next phases of the project.

Scope of the Study Area: It is acknowledged in Section 10.2.4 that an initial Study Area covering 5 km from the Solar PV Site boundary and 1 Km from the Grid Connection Corridor has been allowed for the proposed development. At this early stage, we recommend these extents are discussed and further reviewed as the full extent of potential visibility of the development is not yet fully known. ZTV mapping within Appendix 10.1 identifies potential visibility beyond these extents. The ZTV mapping would be updated once the proposals have developed (as stated within paragraph 10.2.5) and the study area should not be fixed until the full extents of visibility are known from both desktop and site work. Once the study area has been defined, the LVIA should also provide a justification for the full extent/distance, which would be further refined as part of the iterative process.

Landscape: Published landscape character areas have been identified including Natural England's National Character Areas (NCA 47: *Southern Lincolnshire Edge* and NCA48: *The Trent and Belvoir Vales*) and regional studies including the *North Kesteven Landscape Character Assessment*, however to align with GLVIA, the LVIA should include an assessment of landscape effects at a wide range of scales down to Site level, and will need to include a finer grain landscape assessment of the Site and immediate area. This assessment will consider individual landscape elements and site-specific features that make up the Site and its local character area.

The non statutory comments from NKDC highlight the prevalence of designated and non-designated heritage assets in the vicinity of the Site including Leadenham, Brant Broughton and Welbourn Conservation Areas and Grade I listed church spires including St Helens and St Chads. Additionally, attention is drawn to the Lincoln Cliff Area of Great Landscape Value (AGLV) and the amenity enjoyed from PROW along this elevated landscape feature. The Scoping Report mentions the long-distance trail 'The Viking Way' with NKDC identifying other important trails including the Ridge and Furrows Arts and Heritage Trail between Sleaford and North Hykeham. Landscape character effects to the AGLV are a particular concern, and the development has the potential to have significant adverse effects on this sensitive receptor.

Finally, the Site is within the Central Lincolnshire Biodiversity Opportunity Area which is promoted for habitat creation and eco networks specifically 'wetland' creation. Existing landscape habitat and will need to be protected and extended where possible. Consequently, there is a need to further clarify the range of potential landscape receptors to be considered, however at this early stage of the project, we would request these be reviewed and consulted upon more once proposals have been developed and we are not in a position to confirm their inclusion or omission.

Visual: We request that the visual assessment should identify and focus on visual receptors, with recent LI guidance (LITGN 2024-01) clarifying that the "*focus of the visual assessment should be the visual receptors*", and that viewpoints are for the "*illustration of the visual effects*".

The Scoping Report has identified 17 No. Viewpoints (A-Q) which includes views from some PROW, edge of settlements, road edges and farmland locations. NKDC in their non statutory comments have also suggested additional viewpoints. Many of these are located adjacent to those proposed in the Scoping Report, but there are variances and additional locations. For example, NKDC non-statutory comments suggest viewpoint locations near Southbarn Farm and on Welbourn Low fields that are not identified in the Scoping Report.

We would expect that the visual assessment would include for the collaborative identification of visual receptors and viewpoints, and should clearly cross reference these viewpoints to their associated receptors. At this early stage of the project, we request any visual receptors be reviewed and consulted upon further once proposals have been developed. We are not in a position at this stage to confirm their inclusion or omission.

Additionally, the NKDC Landscape Character Assessment describes: "*The Views from the (Lincoln) cliff present possibly the most important vistas within the district*" and it will be essential to ensure that viewpoints from this feature are agreed by all parties. The combination of an open agricultural landscape adjacent to the rising land of the Lincoln Cliff results in numerous sensitive landscape and visual receptors, with the development being particularly

conspicuous in views from receptors within the rising land of the Lincoln Cliff, which include settlements and PROW (which will likely be receptors of high sensitivity). The overall context also presents difficulty in effectively mitigating the scheme, with extensive elevated views looking down onto the Site, which even with extensive planting or ground modelling (e.g. bunding) would only likely partially screen.

The visual assessment should take account of the 'worst case scenario' in terms of winter views, and effects associated with landscape mitigation at the Operational Phase (year 1), Residual Phase with planting having established (10 to 15 years), and at the Decommissioning Phase.

The LVIA should ensure all elements associated with the development are considered and assessed, such as supporting infrastructure including inverters, transformers, switchgear, battery storage (BESS), sub-stations, welfare facilities, security equipment including CCTV poles and boundary fencing, which may be more visible than panels due to height, mass and extent.

Cumulative Impacts: cumulative Landscape and Visual effects should be assessed in regards to other major developments, and in particular other NSIP projects and long and short list TCPA projects. The Scoping Report mentions the 'Future Baseline' in Section 10.5.22, and acknowledges that '*Cumulative landscape and visual effects may also arise*' in Section 10.6.4, but does not name any proposals or further projects that may be of relevance. NKDC identifies Navenby sub-station and the A46 Newark Bypass as projects of possible relevance, and other proposed solar and BESS projects will need to be considered depending on their proximity and scale. Proposals with potential cumulative impact will need to be identified, reviewed and agreed with LCC, NKDC, and other relevant stakeholders as part of the iterative process. It is important that both landscape and visual effects are considered alongside any identified cumulative schemes, and both sequential and combined cumulative views are considered, as together these schemes will add considerable areas of energy infrastructure into an area that is currently characterised by open, large-scale agriculture.

We would recommend ZTVs of the identified cumulative schemes are utilised to clarify potential cumulative visual effects, and this may identify additional viewpoints to capture combined views (we anticipate there may be cumulative views both *In combination* and *In succession*). We would also expect that sequential cumulative views would be evident for users of PROW and roads in the local area. These regular views of energy infrastructure have the potential to make visual receptors with views of the solar scheme more susceptible to changes in the view and subsequently more sensitive through the perception of being within an "energy landscape" as opposed to an agricultural landscape.

Mitigation and Layout: at this stage, as this is an iterative process, it is not relevant to comment on any potential mitigation or layout of the development. However, best practice guidance, relevant published landscape character assessments and District and County Council policy shall be referred to and implemented as appropriate.

We would also expect the landscape and planting scheme is coordinated with other relevant disciplines, such as ecology, heritage or civils (e.g. SuDS features), to improve the value of the landscape and reflect appropriate local and regional aims and objectives. Any Landscape Scheme and associated Outline Landscape and Ecological Management Plan should accompany the ES which should cover in detail, as a minimum, the establishment period,

which is assumed would be up to 15 years to cover the period up to the residual assessment. The management plan should provide for both new planting and existing retained vegetation and how it will be managed and protected through all phases of the development.

11 Noise and Vibration

The Council is satisfied with the proposed methodology and matters to be scoped in and out. It is anticipated that construction / decommissioning noise impacts can be addressed in a CEMP / DEMP. Consultation with Environmental Health officers at the Council on the scope and methodology of baseline sound surveys would be welcomed.

12 Socio-economics and Land Use

The NKDC Economic Strategy (2024-29) Vision states:

'By 2035 North Kesteven will have a flourishing green, diverse and inclusive economy that feeds and defends the nation and delivers balanced growth that respects the needs of businesses, people, their communities and the environment.'

In seeking to create a balanced growth economy it is important that as complete a picture as possible of the economic impacts of NSIP developments are considered. However, given the minimal and temporary nature of the direct economic benefits of individual applications (largely limited to the construction phases) it is Officers' view that the indirect impacts, and particularly the cumulative economic and socio-economic impacts of a potentially significant number developments of a similar scale, both in The District and neighbouring parts of Greater Lincolnshire, must form a significant part of a comprehensive assessment.

Given the number and scale of NSIP developments currently 'live' or in the pre-planning phases there is a significant risk created by considering proposals either individually or on a piecemeal basis that an underestimation of the cumulative impacts may cause unforeseen and unmitigated harms or, as officers believe more likely, that real opportunities will be missed. It is estimated that 10%+ of all land in the District could be occupied by Solar Farms in the next decade and officers anticipate change on such a scale to have the potential to be transformational.

The Council is committed to achieving Net Zero by 2030 and because North Kesteven is predominantly rural in character, the development of green infrastructure is a key strategic aim of NKDC's Economic Strategy and the NK Plan. While NSIP developments are fundamentally of national importance, the potential of these developments to contribute singly and collectively to the growth of local green infrastructure should be grasped.

In scoping the EIA for Leoda solar farm the developer has identified in Chapter 2, 2.4 the potential for local businesses to be involved in the construction, maintenance and decommissioning stages of the project. Going forward we would expect detailed consideration to be given to:

- 1. How opportunities for local businesses would be created during the Construction Phase.** The proportion of construction spend contracted locally is of potentially significant local value – what the proportion of the total investment required in construction will be contracted locally?
- 2. Support for Local Procurement:** What criteria or weighting will be used to encourage local companies to apply for contracts?

3. **Opportunities for skills and apprenticeships:** The development of skills in the green economy (including construction and maintenance) is a key strategic goal for the authority particularly in support of the growth of green infrastructure.

The applicant has stated at 2.4.6. that approximately 400 staff will be directly employed in the construction phases, Given the number of similar scale applications (with local requirements identified already running into thousands!) and existing national shortages of skilled workers in the construction sector, as well as the impact of other major projects in housing and transport, very serious consideration must be given to the cumulative impacts of the requirement for construction labour and associated accommodation requirements for the duration of construction (and potentially decommissioning) activities, which clearly may require a regional if not a national plan if NSIP development is not to be compromised.

Additionally, to the points set out in Chapter 2 from an economic development perspective and bearing in mind our commitment to move towards balanced economic growth we would also expect future assessments to consider:

- **The direct economic impact on the farm business or holding where the development takes place.** The Agri-Food sector is The District's most important sector by GVA and employment and therefore our Economic Strategy strongly supports both primary agriculture and food processing. In order to create a balanced picture of all the economic benefits of the proposal, the Council wishes to understand how the host farm business will benefit both in the short and the long term and specifically how the income stream generated by the proposal will support business growth, resilience and viability.. The Council notes that solar arrays might *de facto* be considered as 'diversifications' but by definition, a diversification must be able to demonstrate how it will support the main farm business.

The applicant has identified that there will be a requirement for temporary accommodation for the construction phases. Again it is imperative that the cumulative impacts of many such developments with similar requirements are taken into account. As such the 5km 'Zone of Influence' identified in Chapter 5.6.10 is we would argue, not fit for purpose.

In terms of the impacts on accommodation and the visitor economy more generally we would expect the applicant to consider.

- **The direct impacts on Tourism and the Visitor Economy, specifically the impact on the availability of visitor accommodation:** NKDC has published a Tourism Strategy (2024) alongside its Economic Strategy (2024). Tourism is a key growth sector for The District and a significant net contributor to the local economy worth £201M and growing just over 5% in 2023. One of the strategy's key aims is to continue to increase the length of visitor stay and thereby expenditure, while at the same time reducing emissions by cutting the volume of day trips. In order for this goal to be achieved there is a need to increase the volume of serviced accommodation in The District, which both STEAM figures and NKDC's own recent Hotel Study (2024) show are insufficient to meet current, let alone future levels of demand. There are shortages at key times of the year or when an event of national importance and significant value to the local economy such as 'Cereals' (Leadenham 2025) takes place. The cumulative impact of a number of large scale NSIP developments on the availability of serviced accommodation across the District is a cause for very serious concern. These impacts should be modelled and

quantified if a balanced picture of the potential impact on the economy are to be firmly established. Previous NSIP applications have shown some impact on availability particularly in the core season (April-September) but they have not considered the cumulative impacts of a large number such developments. Clearly it is in the best interests of developers to consider the serious question of workforce accommodation from a practical viewpoint rather than attempting to minimise the issue.

Finally in Chapter 12 the applicant has successfully identified the importance of the development of green infrastructure in the NK Plan and we welcome the broad scoping of direct impacts outlined in Table 12.2. However as previously set out in this response the direct economic impacts of NSIP developments are minimal and temporary, whereas the indirect and cumulative impacts present more significant challenges and opportunities for the local economy and rural communities. These impacts must be 'scoped in' if future assessments are to be meaningful.

There are a number of public rights of way (PROW) within and around the site. The Ridges and Furrows Arts and Heritage Trail, a 30 mile trail running along the Lincoln Edge between Sleaford and the Millennium Green in North Hykeham, runs to the east of the proposed site. A number of PROWs between Wellingore and Welbourn form part of the trail and in the Council's assessment the proposed solar farm would harm the experience of at least parts of the trail between the two settlements, and where the trail is noted for its 'panoramic views, traditional villages and beautiful countryside'.

The application should assess the physical and experiential effect of development on the Ridges and Furrows Arts and Heritage Trail in particular, and with reference to the landscape characteristics that the trail was developed to experience.

The Council recommends that the applicant give consideration to the enhancement of existing PROWs within the site and their connection, for example, by creating permissive routes. This could include permissive connections between Wlbn/19/2 and Wlbn/1/1 to BrBS/13/2 to create an unbroken route between Wellingore, Welbourn and Brant Broughton. In addition, there is scope to dedicate public access and potential biodiversity enhancements to woodland areas such as at GRN 4939,3543 adjacent to footpath Wlbn/19/2.

13 Traffic and Movement

The Council defers to the views of Lincolnshire County Council as the Highway Authority for comment on traffic and public rights of way, however, we will point out matters of local importance as appropriate.

14 Soils and Agricultural Land

The Council, in a shared arrangement with LCC, have engaged Landscape consultants to provide agriculture and soils advice. Their full comments are attached to this response and should be taken into account in providing the Scoping Response.

In summary their comments are:

Cable Route: a full ALC of the cable route is not proposed, however, once identified the Council considers that this should be undertaken.

The soil management plan should consider the cable route in order to minimise the impact on soil structure, land drainage and ultimately, soil quality. The route passes across and will be buried under mainly open countryside that is largely arable farmland.

Two key groups of impacts have been identified for the purpose of defining receptor sensitivity and impact magnitude:

- Land use and tenure: these are the potential impacts on human activity, including landowners, occupiers, local communities and other land users.
- Agriculture: these are the potential impacts on the soil resources, the surrounding environment and the agricultural productivity of the land.

Land drainage is a key factor in assessing both the land classification and the impact on land restoration particularly along any cable or grid connection routed, where trenches are to be dug or where soil are to be stripped, even temporarily.

Decommissioning: it is proposed to scope out decommissioning from the ES. This is not acceptable given the lifespan of the solar is proposed to be 40-60 years long. At present there is no settled consensus as to whether a long term temporary use of land for solar PV arrays is not significant and therefore the loss of any BMV agricultural land over the 20 hectare threshold may still be significant. The IEMA guidelines indicate that the permanent sealing or land quality downgrading would result in permanent irreversible loss of agricultural land. The amount of permanent irreversible loss of agricultural land (including best and most versatile agricultural land) should be made clear within the ES. Natural England should be consulted if this is likely to be over 20ha.

Agricultural Land Classification Survey and Methodology: the scoping report confirms that the site has only been preliminarily appraised for ALC. The soil augering of the site should be undertaken in line with TIN 049 and the MAFF 1988 Guidelines comprising one auger point per hectare and with occasional soil pits particularly where soil types vary. On a site of this size the amount of augering should be around 900+ auger holes and 6-8 pits to verify the soil profiles, more if there are significantly different soils. The anticipation is that the site will comprise at least some BMV agricultural land.

Soils and Structure: the soils are described as permeable seasonally wet slightly acid but base-rich loamy and clayey soils. Landcover is identified as principally grassland and arable with some woodland. Soil structure can be significantly damaged during the construction phase. There is 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 construction.

Cumulative ALC Impacts: There are a number of small(er) and large-scale Solar PV schemes in Lincolnshire, with others planned or proposed. There are many known solar project NSIP schemes; specifically in relation to impacts on agricultural land. The situation is a moving picture as new proposals come forward from time to time. Most of these sites are proposed on farmland. Lincolnshire in particular is an agricultural area with substantial areas of land within the Best and Most Versatile category.

For a project of this scale there is an impact, the project will tie up the land for up to many years. The area is large locally and if the quantities of BMV are similar to other NSIP sites, then the

impact will be reasonably large and the Council would expect the impact to be significant at a District or County Level.

Consultation: Natural England should be consulted on the approach to Agricultural Land Classification methodology.

Ecological Effect: if the land is used for biodiversity, it would not be available for agriculture. However even if it is available for some form of cutting or grazing it is unlikely that the ALC grade will change significantly during the life of the project. There is evidence that organic matter builds up in biodiversity areas at a faster rate than arable farmland and this may benefit the land, but it is not a factor in the assessment of ALC.

Long term, where biodiverse land becomes ecologically important there is the possibility of land becoming assigned with environmental designations, such as SSSI status, though generally this has not so far occurred on other solar sites.

15 Materials and Waste

The Council defers to the views of Lincolnshire County Council as the Minerals and Waste Authority for views on this topic.

16 Other Environmental Topics

Air Quality: The Council is satisfied with the proposed methodology and matters to be scoped in and out. It is anticipated that construction / decommissioning air quality impacts can be addressed in a CEMP / DEMP. The Council agrees that there will be little impact during the operational phase.

Human Health: No comments.

Glint and Glare: It is noted that glint and glare have been scoped out of the study. At this stage, however, there is not sufficient evidence available to reach such a conclusion particularly as the type of solar panel system has not been fixed. Therefore it is recommended that a glint and glare study is still produced to assess the likely effects on visual impact especially since the solar PV panels will be visible from higher points above the site on roads and footpaths, on highway safety and aviation safety. There are several operational RAF bases which operate within the area in addition to RAF Cranwell. These are RAF Barkston Heath, RAF Waddington and RAF Coningsby. There are also a number of private airfields in the area. It is notable that other solar farm NSIP applications (Heckington Fen, Springwell, Beacon Fen) have included glint and glare studies as part of their ES. The Defence Infrastructure Organisation should be consulted for their views on potential aviation receptors.

Ground Conditions: No comments.

Major Accidents or Disasters: The proposed BESS should be designed to accord with the most up-to-date guidance prepared by the National Fire Chiefs Council (NFCC) which we understand will be updated in Spring 2025 and contain revised recommended separation distances between battery units, buffer zones to sensitive receptor properties, along with water suppression and supply, fire appliance access and landscaping design guidance.

The proposed BESS and high voltage on-site transmission infrastructure is currently noted to the northwest of Welbourn on the indicative site plan. Whilst we accept that layout optioneering will continue as the scheme progresses, potential co-location with Welbourn village immediately

adjacent to the dismantled railway raises some initial concerns as to sensitive receptor separation and the potential requirement for a smoke plume assessment. The location of the BESS will need to be informed by the suitability of access for both construction and emergency responses purposes; the latter to be informed through discussion with Lincolnshire Fire and Rescue and the Highway Authority. In addition, the April 2024 guidance 'Health and safety in grid scale electrical energy storage systems' should also be referenced in the development of the BESS layout and associated risk assessment and mitigation measures.

Pending the comments of Lincolnshire Fire and Rescue, a Smoke Plume assessment might need to form part of the Framework Battery Fire Safety Management Plan owing to the location of the BESS as currently proposed noting the relatively proximity to villages along the Lincoln Cliff in particular Welbourn and prevailing wind direction.

Telecommunications, Television Reception and Utilities: No comments.

Electromagnetic Fields: No comments.

Without prejudice to the future views of the Council, the applicant should note that a s106 agreement may be required for financial contributions towards BNG and ecological monitoring and/or the Ecological Steering Group, above ground heritage related mitigation linked to the suggested Conservation Management Plan and skills/employment mitigation.

The Council recognises that EIA is an iterative process and welcomes the opportunity to engage with the applicant over the methodology for the ES and the provision of environmental information that it holds.

Yours faithfully



NSIP Planning Consultant
Planning Services

Enc: comments from AAH, Landscope and LCC Archaeologist

REVIEW OF SCOPING
REPORT
(AGRICULTURE AND SOILS)
LAND AT LEODA SOLAR

February 2025



Review of Scoping Leoda Solar Project

Key Points for ES

- A detailed base line ALC is expected, subject to Natural England consultation, it is likely to cover the area affected and be in detail at a standard density of 1 auger bore per hectare.
- It is likely that a lot of the site will be BMV quality, but lower Grade(s).
- A Soil Management Plan is also expected to include construction, management and decommissioning.
- The Scoping suggests that the cable and grid connection routes will not be scoped into the ES and that decommissioning will be scoped out.
- At the moment the cable routes have not been surveyed in detail and would only be surveyed post planning approval.
- Although not mentioned specifically there may be justification for a soil health assessment and input to loss of land for food production and the impact on any agricultural holdings affected.

Introduction

The Proposed Development comprises the installation of solar photovoltaic (PV) generating panels and associated development such as electrical equipment, cabling and on-site battery energy storage system (BESS) facilities across a proposed site that lies to the west of the village of Leadenham. The Scheme would allow for an anticipated export of approximately 400 megawatts (MW) electrical capacity.

The Solar PV Site comprises multiple land plots within a largely contiguous site as shown on **Figure 1-2**. The total area of the Solar PV Site is approximately 961 hectares (ha) (excluding the Grid Connection Corridor).

Section 14 of the Scoping Report sets out the main scoping topics to be considered for 'scoping in', with regard to Soils and Agriculture.

Text in italics is taken direct from the Scoping Report

14.2 Study Area

14.2.1 The Study Area for the Soils and Agricultural Land assessment is the boundary of the Site. No buffer is applied when describing the Study Area as the impacts to soils and agricultural land only occur on the land that is directly impacted by the Scheme.

Cable route

A full ALC of the cable route is not proposed:-

14.2.2 The Study Area includes the Grid Connection Corridor but will be assessed using secondary data only without carrying out surveys. This is because any works within this area would represent a temporary impact only and would not change the agricultural land classification or prevent farming once the cable is installed. The cable would be buried below ground at approximately 1.2 m depth,

therefore allowing existing agricultural activity including cultivations to enable return of the land to arable. Survey of soils and agricultural land classification would be done preconstruction to feed into the Soil Management Plan and determine appropriate storage methods for the soil.

Land drainage is a key factor in assessing both land classification and the impact on land restoration particularly along any cable or grid connection route, where trenches are dug, or where soils are stripped, even temporarily. It has been raised repeatedly at NSIP hearings for cables and buried infrastructure.

14.6 Potential Effects and Mitigation

Permanent loss of agricultural land within the Solar PV Site will be principally to any areas of ecological enhancement / habitat creation which are expected to remain after the Scheme has been decommissioned.

14.7.2 The assessment will be undertaken in consideration of IEMA's guidance document 'A New Perspective on Land and Soil in EIA' (Ref 14-12). With particular reference to Section 9: Assessing Impacts on Land and Soil. Survey methodology of the Solar PV Site will follow the standard approach, with augered soil samples taken on a 100 m grid, supplemented with additional samples at the boundary of soil types and with soil pits to provide additional information for each soil type. Impacts to disturbed soils will be controlled through a Framework CEMP and accompanying Framework Soil Management Plan (SMP).

Decommissioning

In addition to project commissioning there is a section dealing with Decommissioning at the end of the proposed life

*14.7.1 The impacts to soils and agricultural land would be assessed for the construction and operational phases of the development. As set out in **Chapter 2: The Scheme**, decommissioning impacts are expected to be similar to, or of a lesser magnitude than, construction effects. Therefore, decommissioning effects will be considered to be the same as construction phase effects and will be scoped out of specific assessment within the ES.*

The scoping out of decommissioning may be unacceptable to your authority, given the uncertainty that a 40+ year timeframe presents.

The main body of the report with reference to Agriculture and Soils is set out in Table 14.4 Agriculture and Soils. At present there is no settled consensus as to whether a long term temporary use of land should be considered as not significant and therefore the loss of any BMV over the 20 hectare threshold may still be significant.

Table 14-4: Elements scoped in and out of the assessment of soils and agricultural land

Element	Scoped in / Scoped Out
Agricultural land and land use – Construction and Operation.	Scoped in. The Scheme has the potential to impact agricultural land.
Soil resource quality - Construction and Operation.	Scoped in. The Scheme has the potential to impact soil resources in terms of disturbance and damage. Improvements in soil quality may also arise.
Agricultural land and land use – Decommissioning.	Scoped out. The precise details of the decommissioning, although outlined in the Framework DEMP, are not known. However decommissioning effects are expected to be similar to, or of a lesser magnitude than, construction effects. Therefore, decommissioning effects are considered to be the same as construction phase effects and will be scoped out of specific assessment within the ES.
Soil resource quality - Decommissioning.	Scoped out. Improvements to soil quality may arise during the operational period from leaving land uncultivated. Decommissioning effects are expected to be similar to, or of a lesser magnitude than, construction effects. Therefore, decommissioning effects are considered to be the same as construction phase effects and will be scoped out of specific assessment within the ES.

Agricultural Land Classification and Soils

14.3.6 *Therefore, knowledge of the ALC grading of land affected by the Scheme is necessary to be able to determine whether the requirements of planning policy are being met.*

14.3.9 *The following local policies are of relevance to soils and agricultural land:*

Policy S67 concerns Best and Most Versatile Agricultural Land. Proposals should protect the best and most versatile agricultural land so as to protect opportunities for food production and the continuance of the agricultural economy.

The Scoping report confirms that the site has only been preliminarily appraised for ALC and maps and some details are provided.

14.4.3 *The 1:250,000 scale Provisional ALC mapping, which is available via the Government's geographic information website, Magic.gov.uk (Ref 14-7), is the most current and detailed published ALC data covering the whole of the Study Area. However, it is important to note that these data pre-date the revised ALC methodology issued in 1988 (Ref 14-8) and as a result, the data do not differentiate between ALC Subgrades 3a (BMV) and 3b (non-BMV). Additionally, the scale of the mapping is such that it does not pick up variations in ALC grade for areas less than approximately 80 ha. The Provisional ALC mapping therefore provides an indication of the land quality in the Region, but the extent and distribution of BMV agricultural land within the Study Area cannot be defined from the Provisional mapping alone.*

14.4.4 No ALC survey data collated after the revised ALC methodology are available locally in the vicinity of the Site. The Provisional ALC data suggests that the Solar PV Site is predominantly within areas classified as Grade 3 with areas of Grade 2 at its fringes.

ALC Survey Methodology

14.5.1 Natural England's Guide to Assessing Development Proposals on Agricultural Land (Ref 14-5) sets out the government policies and legislation that developers and local planning authorities should refer to when considering development proposals that affect agricultural land. It also includes guidance on when Natural England should be consulted on development proposals, provides a detailed explanation of ALC and information on published ALC resources and explains circumstances in which new detailed surveys may be required. It also explains how ALC data should be used in the assessment of planning decisions and the need to include plans to protect soils. The guidance also summarises the required survey methodology (also presented in Natural England's 2012 Technical Information Note 049 (Ref 14-10)

The soil augering of the site should be undertaken in line with TIN 049 and the MAFF 1988 Guidelines, one auger point per hectare and with occasional soil pits particularly where soil types vary. On a site of this size the amount of augering should be around 900+ auger holes and probably 6 or 8 pits to verify the soil profiles – more if there are significantly different soils.

The anticipation with this site is that it will comprise at least some BMV:-

Cable Routes

At the moment the cable routes have not been surveyed in detail, but once clearly identified this should be undertaken.

The cable route will be a temporary construction feature with soils reinstated.

The soil management plan should also consider the cable route in order to minimise the impact on soil structure, land drainage and ultimately soil quality. Guidance is available in published documents.

The route passes across and will be buried under mainly open countryside that is largely arable farmland.

Two key groups of impacts have been identified elsewhere for the purpose of defining receptor sensitivity and impact magnitude:

- Land use and tenure: these are the potential impacts on human activity, including landowners, occupiers, local communities and other land users
- Agriculture: these are potential impacts on the soil resource, the surrounding environment and the agricultural productivity of the land.

Additional concerns include land drainage impact during construction and restoration of cable trenches.

Soils and Structure

The soils are described as slowly permeable seasonally wet slightly acid but base-rich loamy and clayey soils. Landcover is identified as principally grassland and arable with some woodland.

Soil structure can be significantly damaged during the construction phase of the process. There is 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.

Cumulative ALC Impacts

There are a number of small(er) and largescale Solar PV schemes in Lincolnshire, with others planned or proposed. There are many known solar project NSIP schemes; specifically in relation to impacts on agricultural land. The situation is a moving picture as new proposals come forward from time to time. Most of these sites are proposed on farmland. Lincolnshire in particular is an agricultural area with substantial areas of land within the Best and Most Versatile category.

District and County ALC

For a project of this scale there is an impact, the project will tie up the land for up to many years. The area is large locally and if the quantities of BMV are similar to other NSIP sites, then the impact will be reasonably large and I would expect the impact to be significant at a District or County Level.

Design, Mitigation and Enhancement Measures

A soil management plan is proposed:-

14.6.17 Industry standard guidance/current best working practice (for example measures set out in Ref 14-10 and Ref 14-11) will be followed in relation to soil workings throughout the construction and operational phases of the Scheme and, as such, is considered to provide embedded mitigation. This mitigation will be set out in a Framework Soil Management Plan (SMP) to be submitted with the ES; this will form the basis of a detailed SMP to be produced pre-construction. The SMP will also draw upon the soil survey data collected for the Scheme to ensure that the mitigation measures are tailored to the soils encountered.

Consultation

Whilst no specific consultation on soils and agricultural land has been undertaken with Natural England, they acknowledge that:-

14.3.1 Schedule 4, Part (y) of the Town and Country Planning (Development Management Procedure) (England) Order 2015 (Ref 14-1) requires that Natural England be consulted if the area of a proposed permanent development exceeds 20 ha of BMV land.

It seems inevitable that Natural England will have an input to the ALC approach.

Ecological Effect

If the land is used for biodiversity, it would not be available for agriculture. However even if it is available for some form of cutting or grazing it is unlikely that the ALC grade will change significantly during the life of the project. There is evidence that organic matter builds up in biodiversity areas at a faster rate than arable farmland and this may benefit the land, but it is not a factor in the assessment of ALC.

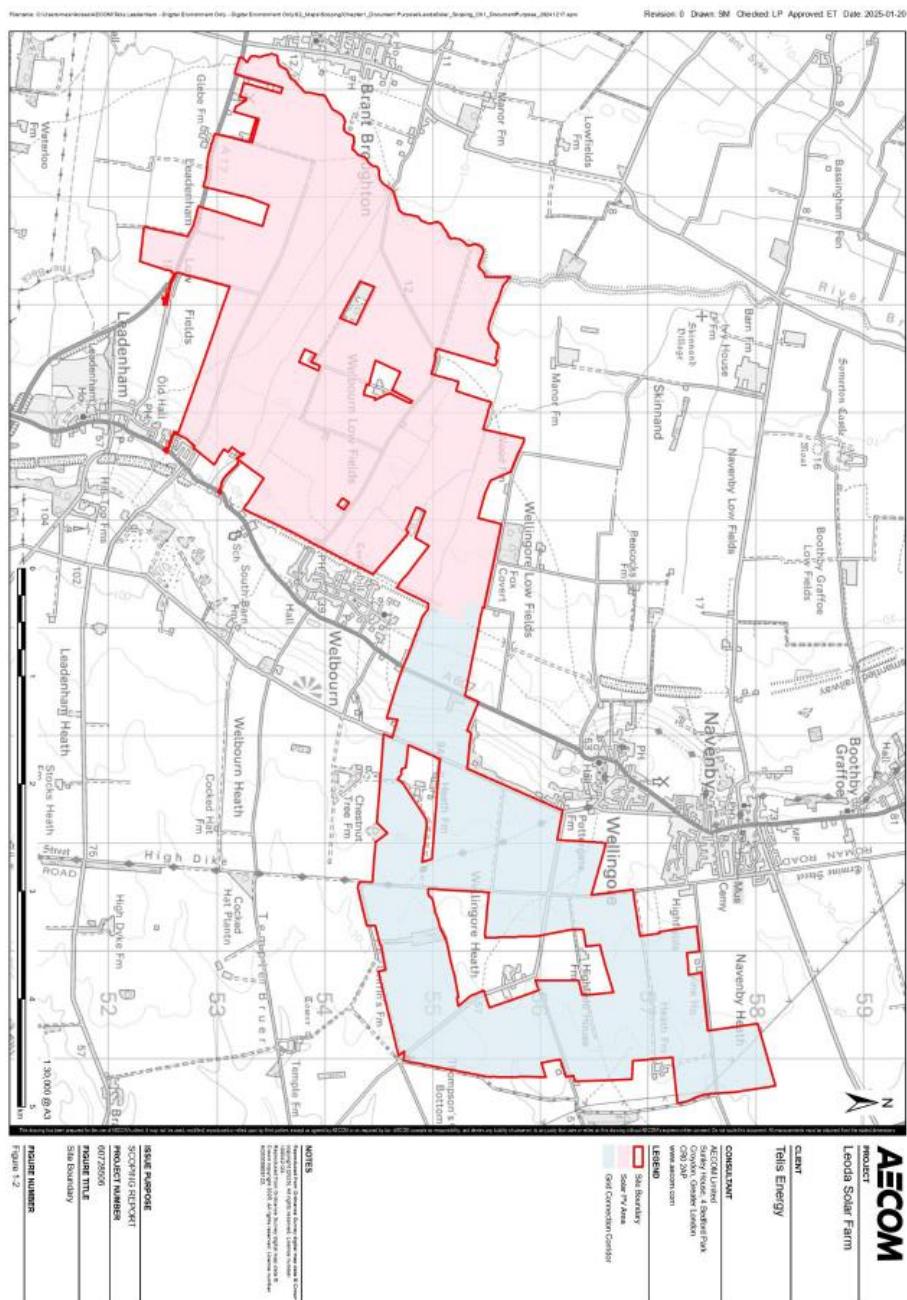
Long term, where biodiverse land becomes ecologically important there is the possibility of land becoming assigned with environmental designations, such as SSSI status, though generally this has not so far occurred on other solar sites.

Landscape Land and Property Ltd

February 2025

Figure 1-2 Map of the Site

Figure 1-2: Site Boundary



Technical Memorandum 1: AAH TM01

Lincolnshire County Council, Leoda Solar Farm

Landscape and Visual Scoping Opinion

This review has been carried out by AAH Consultants on behalf of Lincolnshire County Council (**LCC**) and relates to landscape and visual issues and elements only. It is based upon a review of the relevant sections of the following document:

- *Leoda Solar Farm; Scoping Report; January 2025*. Prepared by AECOM for *Leoda Solar Farm Limited*.

As part of the submission, we would expect the production of a Landscape and Visual chapter of the Environmental Statement (**ES**), which would be in the form of a Landscape and Visual Impact Assessment (**LVIA**), and any supporting information (such as plans or figures) reflect current best practice and guidance from, as a minimum, the following sources:

- ‘*Guidelines for Landscape and Visual Impact Assessment*’, (GLVIA3), April 2013 by the Landscape Institute (LI) and Institute of Environmental Management and Assessment (IEMA);
- ‘*An Approach to Landscape Character Assessment*’, Natural England (2014);
- ‘*Technical Guidance Note (TGN) 06/19 Visual Representation of Development Proposals*’, 17th September 2019 by the Landscape Institute (LI);
- ‘*Technical Guidance Note (TGN) 1/20 Reviewing Landscape and Visual Impact Assessments (LVIA) and Landscape and Visual Appraisals (LVAs)*’, 10th January 2020 by the Landscape Institute (LI);
- ‘*Technical Guidance Note (TGN) 04/20 Infrastructure*’, April 2020 by the Landscape Institute (LI); and
- ‘*Technical Guidance Note (TGN) 2/21 Assessing landscape value outside national designations*’, May 2021 by the Landscape Institute (LI); and
- ‘*Technical Guidance Note (LITGN) 2024-01 Notes and Clarifications on Guidelines for the Landscape and Visual Impact Assessment Third Addition (GLVIA3)*’, August 2024 by the Landscape Institute (LI).

Overall, we would expect that the assessment of potential Landscape and Visual matters and evolving proposals relating to Leoda Solar Farm, as a Nationally Significant Infrastructure Project (**NSIP**), follow an iterative process of engagement and consultation to ensure the following are not fixed at this stage and are discussed, developed and agreed at subsequent technical meetings with the applicant:

- LVIA Methodology;
- Development, and subsequent Zone of Theoretical Visibility (**ZTV**), parameters;
- Study Area extents (distance);
- Viewpoint quantity and locations;
- Photomontage/Accurate Visual Representations (**AVRs**):
 - Quantity and location;
 - Phase depiction;

- AVR Type and Level.
- Mitigation Measures/Landscape Scheme/Site Layout;
- Cumulative effects, including surrounding developments to be considered; and
- The extent as to which a Residential Visual Amenity Assessment (**RVAA**) should be considered (based on the Landscape Institute TGN 2/19) if there are residential properties with receptors likely to experience significant effects to their visual amenity.

While the focus of this review is on Landscape and Visual matters, other information provided within the Scoping Report, and associated Appendices and figures, has also been considered, providing background and context to the Site. At this initial stage of the NSIP/DCO process, the content and level of information provided by the developer within *Section 10. Landscape and Visual Amenity* is generally considered satisfactory with the sources listed above covered, however, as stated previously, we would expect to discuss this content and approach as part of the iterative process. Due to the scale and extent of the Site and proposed development, we would expect there to be adverse landscape and visual effects.

The following should be considered in the evolving assessment and layout:

Viewpoints

The final locations of viewpoints are to be reviewed and agreed with LCC, North Kesteven District Council (**NKDC**) and other relevant stakeholders. The final viewpoint selection should also consider views of taller and more conspicuous elements, such as battery storage or sub-stations once the layout is more developed, as well as consider potential key, or sensitive, viewpoints. We would welcome an initial discussion and subsequent workshop (on site if appropriate) with the developer's team in regards to proposed viewpoints. Following this, LCC would visit the Site and study area to review the proposed viewpoints and provide detailed feedback to the applicant. Specifically, the non-statutory comments from North Kesteven District Council (dated 5th February 2025) identifies several locations in addition to those listed in the Scoping Report. Viewpoints are considered further under the **Visual** section of this Technical Memo.

Photomontages

To gain an understanding of the visibility of the development and how the panels and infrastructure would appear in the surrounding landscape, Photomontages/AVRs should be produced. The number and location of the agreed viewpoints to be developed as Photomontages/AVRs should be agreed with LCC/NKDC and other relevant stakeholders and produced in accordance with *TGN 06/19 Visual Representation of Development Proposals*.

At this stage, it is deemed appropriate that these should be produced to illustrate the proposals at different phases: Existing Situation (baseline), Operational (year 1) and Residual with planting established (10 to 15 years). The Photomontage/AVR Level and Type is to be discussed and agreed.

Methodology

As stated previously, the LVIA Chapter should be carried out in accordance with the GLVIA3 and undertaken by suitably qualified personnel (we would expect these to be Chartered Members of the Landscape Institute (**CMLI**)). The methodology provided at Section 10.7 is typical of those used for ES Chapters and standalone LVIA where potential significant effects are considered, and reflects the

guidance in GLVIA3. We would request that the most up to date technical guidance be used and a detailed methodology is provided to allow for further interrogation at the next phases of the project.

The Scoping Report states that a “Significant” effect (which would predominantly be Moderate and above) will be evaluated as follows: Effects that are Minor or Negligible will not be deemed “Significant”. Effects that are Moderate **may be** “Significant” but only with reasoned justification. Effects that are Substantial or Major will be deemed “Significant”. This approach to assessment is appropriate, but would be discussed further and agreed once a detailed methodology has been provided.

The methodology should also clearly lay out the process of assessing temporary and permanent elements of the scheme, and the LVIA should clearly identify those elements that would not be decommissioned at the end of the life of the development, and assessed accordingly.

Scope of the Study Area:

It is acknowledged in Section 10.2.4 that an initial Study Area covering 5 km from the Solar PV Site boundary and 1 Km from the Grid Connection Corridor has been allowed for the proposed development. At this early stage, we recommend these extents are discussed and further reviewed as the full extent of potential visibility of the development is not yet fully known. ZTV mapping within Appendix 10.1 identifies potential visibility beyond these extents. The ZTV mapping would be updated once the proposals have developed (as stated within paragraph 10.2.5) and the study area should not be fixed until the full extents of visibility are known from both desktop and site work.

Once the study area has been defined, the LVIA should also provide a justification for the full extent/distance, which would be further refined as part of the iterative process.

Landscape

Published landscape character areas have been identified including Natural England’s National Character Areas (*NCA 47: Southern Lincolnshire Edge* and *NCA48: The Trent and Belvoir Vales*) and regional studies including the *North Kesteven Landscape Character Assessment*, however to align with GLVIA, the LVIA should include an assessment of landscape effects at a wide range of scales down to Site level, and will need to include a finer grain landscape assessment of the Site and immediate area. This assessment will consider individual landscape elements and site-specific features that make up the Site and its local character area.

The non statutory comments from NKDC highlight the prevalence of designated and non-designated heritage assets in the vicinity of the Site including Leadenhurst, Brant Broughton and Welbourn Conservation Areas and Grade 1 listed church spires including St Helens and St Chads. Additionally, attention is drawn to the Lincoln Cliff Area of Great Landscape Value (**AGLV**) and the amenity enjoyed from PROW along this elevated landscape feature. The Scoping Report mentions the long-distance trail ‘The Viking Way’ with NKDC identifying other important trails including the Ridge and Furrows Arts and Heritage Trail between Sleaford and North Hykeham. Landscape character effects to the AGLV are a particular concern, and the development has the potential to have significant adverse effects on this sensitive receptor.

Finally, the Site is within the Central Lincolnshire Biodiversity Opportunity Area which is promoted for habitat creation and eco networks specifically 'wetland' creation. Existing landscape habitat and will need to be protected and extended where possible. Consequently, there is a need to further clarify the range of potential landscape receptors to be considered, however at this early stage of the project, we would request these be reviewed and consulted upon more once proposals have been developed and we are not in a position to confirm their inclusion or omission.

Visual

We request that the visual assessment should identify and focus on visual receptors, with recent LI guidance (*LITGN 2024-01*) clarifying that the "*focus of the visual assessment should be the visual receptors*", and that viewpoints are for the "*illustration of the visual effects*".

The Scoping Report has identified 17 No. Viewpoints (A-Q) which includes views from some PROW, edge of settlements, road edges and farmland locations. NKDC in their non statutory comments have also suggested additional viewpoints. Many of these are located adjacent to those proposed in the Scoping Report, but there are variances and additional locations. For example, NKDC non-statutory comments suggest viewpoint locations near Southbarn Farm and on Welbourn Low fields that are not identified in the Scoping Report.

We would expect that the visual assessment would include for the collaborative identification of visual receptors and viewpoints, and should clearly cross reference these viewpoints to their associated receptors. At this early stage of the project, we request any visual receptors be reviewed and consulted upon further once proposals have been developed. We are not in a position at this stage to confirm their inclusion or omission.

Additionally, the NKDC Landscape Character Assessment describes: "*The Views from the (Lincoln) cliff present possibly the most important vistas within the district*" and it will be essential to ensure that viewpoints from this feature are agreed by all parties. The combination of an open agricultural landscape adjacent to the rising land of the Lincoln Cliff results in numerous sensitive landscape and visual receptors, with the development being particularly conspicuous in views from receptors within the rising land of the Lincoln Cliff, which include settlements and PROW (which will likely be receptors of high sensitivity). The overall context also presents difficulty in effectively mitigating the scheme, with extensive elevated views looking down onto the Site, which even with extensive planting or ground modelling (e.g. bunding) would only likely partially screen.

The visual assessment should take account of the 'worst case scenario' in terms of winter views, and effects associated with landscape mitigation at the Operational Phase (year 1), Residual Phase with planting having established (10 to 15 years), and at the Decommissioning Phase.

The LVIA should ensure all elements associated with the development are considered and assessed, such as supporting infrastructure including inverters, transformers, switchgear, battery storage (BESS), sub-stations, welfare facilities, security equipment including CCTV poles and boundary fencing, which may be more visible than panels due to height, mass and extent.

Cumulative impacts

Cumulative Landscape and Visual effects should be assessed in regards to other major developments, and in particular other NSIP projects and long and short list TCPA projects. The Scoping Report mentions the ‘Future Baseline’ in Section 10.5.22, and acknowledges that ‘*Cumulative landscape and visual effects may also arise*’ in Section 10.6.4, but does not name any proposals or further projects that may be of relevance. NKDC identifies Navenby sub-station and the A46 Newark Bypass as projects of possible relevance, and other proposed solar and BESS projects will need to be considered depending on their proximity and scale. Proposals with potential cumulative impact will need to be identified, reviewed and agreed with LCC, NKDC, and other relevant stakeholders as part of the iterative process. It is important that both landscape and visual effects are considered alongside any identified cumulative schemes, and both sequential and combined cumulative views are considered, as together these schemes will add considerable areas of energy infrastructure into an area that is currently characterised by open, large-scale agriculture.

We would recommend ZTVs of the identified cumulative schemes are utilised to clarify potential cumulative visual effects, and this may identify additional viewpoints to capture combined views (we anticipate there may be cumulative views both *In combination* and *In succession*). We would also expect that sequential cumulative views would be evident for users of PROW and roads in the local area. These regular views of energy infrastructure have the potential to make visual receptors with views of the solar scheme more susceptible to changes in the view and subsequently more sensitive through the perception of being within an “energy landscape” as opposed to an agricultural landscape.

Mitigation and Layout

At this stage, as this is an iterative process, it is not relevant to comment on any potential mitigation or layout of the development. However, best practice guidance, relevant published landscape character assessments and District and County Council policy shall be referred to and implemented as appropriate.

We would also expect the landscape and planting scheme is coordinated with other relevant disciplines, such as ecology, heritage or civils (e.g. SuDS features), to improve the value of the landscape and reflect appropriate local and regional aims and objectives. Any Landscape Scheme and associated Outline Landscape and Ecological Management Plan should accompany the ES which should cover in detail, as a minimum, the establishment period, which is assumed would be up to 15 years to cover the period up to the residual assessment. The management plan should provide for both new planting and existing retained vegetation and how it will be managed and protected through all phases of the development.

AAH Landscape

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20th February 2025

Leoda scoping opinion – Archaeology response

We are pleased to see that archaeology will be scoped in as stated in section 7.6.8 and Table 7-3 and that it is acknowledged in section 5.4.2 that the effects of the scheme on archaeology will be permanent.

Regarding the requirements for archaeological work which will need to be completed before the DCO submission, we would expect the desk based evaluation to be complete and the field evaluation to be well underway by the time the PEIR is produced.

The full standard suite of archaeological evaluation is required. It's vital that a competent full desk based assessment (DBA) be completed at the earliest opportunity as desk based work provides the basis for initial understanding. This is informed by and built upon by a full air photo/LiDAR assessment and geophysical survey which in turn assists in the development of the trial trenching programme.

Sufficient field evaluation is an essential aspect of effective project management, particularly as unevaluated areas of unknown archaeological potential leave a high degree of risk to the development given the potential for archaeology to have significant impacts on work programmes and budgets. Failure to adequately evaluate the Site at the application stage could lead to unnecessary destruction of heritage assets, potential programme delays and excessive cost increases that could otherwise be avoided. There is no public benefit in the destruction of unknown unrecorded heritage assets.

Sufficient baseline information on the archaeology to be impacted across the site is required by NPPF, EIA Regulations and National Policy Statement EN-1 which states "***The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents (5.8.10).***"

We are also very pleased to see that it will be an iterative design process (10.6). Archaeological evaluation including trenching results would allow us to understand where areas of archaeological sensitivity survive across the Site and should be undertaken early enough for the results to inform the iterative process. This would allow for archaeological mitigation through informed design and is essential for effective risk management, providing an understanding of the extent of archaeological mitigation fieldwork required which can then be accommodated within the work programme.

Now to address specific aspects of the Scoping Report.

Section 2.2.2 states that '*Some of this land will also be used for landscaping and habitat creation rather than solar PV infrastructure.*' Landscaping and a range of habitat creation and ecological mitigation measures such as scrapes, pond and lake creation and soil inversion can detrimentally impact currently surviving archaeology. We need to understand the depths of disturbance and the depth of surviving archaeology across the site to know where these works would destroy archaeology.

Tree planting is also very destructive to underlying archaeological remains, the root structures of mature trees can be deep and cover areas several times the size of the tree canopy. The root structures can destroy surviving archaeological features, change soil chemistry and hydrology, there can be uprooting from storm damage and when a tree dies the roots whither and leave voids which collapse.

Sections 2.3.1 to 2.3.6 deal with the Rochdale Envelope. Where the developer proposes the Rochdale Envelope in dealing with their application, it is essential that an understanding of the archaeological resource is achieved to allow for informed and appropriate mitigation. This can only be achieved through adequate trenching evaluation of the full impact zone and the timely provision of the results to inform the baseline evidence and subsequent informed fit for purpose mitigation strategy. Ideally this should be in advance of the determination and certainly the results are needed in advance of the work programme commencing in any of the areas not currently adequately evaluated.

This is in accordance with NSIPs Advice Note Nine which states that '*Implementation of the Rochdale Envelope assessment approach should only be used where it is necessary and should not be treated as a blanket opportunity to allow for insufficient detail in the assessment. Applicants should make every effort to finalise details applicable to the Proposed Development prior to submission of their DCO application. Indeed, as explained earlier in this Advice Note, it will be in all parties' interests for the Applicant to provide as much information as possible to inform the Pre-application consultation process.*' [\(5.2\)](#)

Section 2.3.9 states that '*In areas around the PV arrays and on other land within the Solar PV Site, opportunities for landscaping, biodiversity enhancements and habitat management will be explored.*' As stated above, these works would destroy archaeology where it currently survives across the Site.

Section 2.3.14 states that '*Each string of modules will be mounted on a steel metal rack, known as a frame. The frames are usually supported by galvanised steel poles typically driven 1 m or up to 3 m into the ground...with tracker systems typically requiring deeper depth of pile between 2 m and 4 m.*' It would be helpful to have a rough idea of the number of piles which are proposed. Mallard Pass for example is a similar size and during one of the hearings the Applicant stated there would be approximately half a million piles. While acknowledging the intrinsic flexibility required for a solar NSIP, an understanding of the quantitative impacts would be extremely useful, such as the amount and layout of cabling required for a typical hectare or field of solar arrays, or the depths and size of drainage swales.

Section 2.4.16 states that '*The Framework LEMP will specify mitigation and enhancement measures that would support the BNG. A detailed Biodiversity and Landscape Management Plan will be produced following grant of the DCO and prior to the start of construction (for example, as part of a requirement attached to the DCO).*'

We have seen in other NSIP submissions a lack of interoperability in the assessment and understanding of the impacts, for example the heritage or archaeology chapter does not include reference to the impacts of proposed ecological mitigation measures or drainage strategies which would have extensive ground impacts to the archaeological horizon. We would therefore strongly encourage an integrated approach to undertaking assessments informed by an understanding of the range of impacts which would result from this proposed development, and that documents such as the LEMP inform the assessment chapters including cultural heritage.

Section 5.1.5 states that '*Where potentially significant adverse environmental effects are identified in the assessment process, measures to mitigate these effects will be put forward in the form of recommendations to be undertaken as part of the project development as far as practicable.*'

We seek clarity on the phrase '*as far as practicable.*'

Section 7.2.2 states that '*An assessment of the buried components of the Scheme will be considered in the ES, although the final extent of the Study Area will be determined once the Grid Connection Corridor has been refined.*'

We would encourage archaeological evaluation to inform the selection process in determining the route. Sufficient evaluation is essential in informing the subsequent design and in ensuring the work programme is devised with an understanding of the level of archaeological mitigation work which may be required before and during the construction phase. Pre-determination evaluation of the grid connection corridor area can be very useful for informing a decision on the most cost effective and viable route and can allow for archaeological mitigation by iterative design.

Regarding guidance documents, the [**Lincolnshire Archaeology Handbook \(2024\)**](#) should be included which lays out the requirements for undertaking archaeological work in the County. We refer you to section 5.16: Guidance for large schemes including NSIPs and EIAs, General Scoping Opinion for the Historic Environment. [**Historic England Advice Note 17: Planning and Archaeology**](#) should also be included in the guidance documents.

Section 7.4.1 states that '*Consultation will be carried out with the Historic Environment Officer and Conservation Officer for LCC to ensure, as far as practicable, that cultural heritage issues are identified and potential impacts to cultural heritage assets are included in the assessment.*'

We would welcome early engagement. Again, we seek clarity on the phrase '*as far as practicable.*'

We do not agree that findspots should be scoped out as proposed in section 7.5.2. The Roman pottery scatter findspots are presumably those included in section 7.5.17 and are indications of Roman activity nearby. In Lincolnshire we require that the desk-based assessment should also include Portable Antiquities Scheme (PAS) data as finds can inform our understanding of archaeological potential. Please see the Lincolnshire Archaeological Handbook

Section 7.6.1 states that '*There is potential for previously unrecorded archaeological finds, features and deposits to survive within the Site Boundary. These remains could potentially be affected during excavation works required during construction including, but not limited to, power control infrastructure and on-site cabling, the laying of the required connector cables and the establishment of a construction compounds and access tracks. The construction of the PV module mounting structures are direct piled into the ground and therefore do not require excavation, but they still have the potential to impact archaeological remains.*'

We are pleased that the impacts of piling are acknowledged. Please be advised that in accordance with Historic England's revised Piling and Archaeology guidance '***The applicant will need to provide sufficient information demonstrating an adequate understanding of the significance of the archaeological site and assessment of potential harm to that significance arising from the development.***' ([**Historic England, Piling and Archaeology guidance and good practice \(revised 2019\),**](#) p2)

As stated above we are discovering from information from other NSIP schemes that there will be other activities not listed in section 7.6.1 which can affect surviving archaeology including drainage, ecological mitigation measures and landscaping. Details of all potential impacts should be included in the assessment of archaeological impacts of this development.

We note that section 7.6.2 includes Medieval ridge and furrow earthworks which '*may be physically impacted by the Scheme.*'

Earthwork restoration is essential and a standard mitigation measure. Full survey of any extant earthworks must be undertaken in advance of any groundworks whatsoever and the earthworks reinstated once groundworks are complete. Earthworks by their nature are very fragile and will be destroyed not just by flattening and plant movement but also by the spreading of spoil or any other works which would erase their legibility in the landscape. Such sites will need to be excluded from any such works and this should be included in the construction, operation and decommissioning management plans along with any other archaeological mitigation areas which would be affected.

For any preservation in situ areas the full extent of the archaeological areas must be determined and each area fenced off and subject to a programme of monitoring throughout the construction, operation and the decommissioning phases, with no ground disturbance whatsoever which may disturb or affect the archaeological remains including plant movement or storage. The fencing will need to remain in place and be maintained throughout the lifetime of the scheme including decommissioning and refits. There will need to be an Archaeological Clerk of Works and the management strategy for the preservation in situ areas must be included in all their management plans to ensure the protection measures stay in place throughout the development.

Section 7.7.12 states that '*The DBA, alongside the results of agreed evaluation surveys (see section 7.7.14 below), will confirm whether additional surveys are required to better determine the nature, extent and origin of archaeological remains within the construction footprint of the Scheme.*'

'Additional surveys' are required when they are part of the standard suite of archaeological evaluation consisting of desk based work, geophysical survey and a robust trenching programme, and they are required to inform reasonable mitigation of the developmental impact. Policy, guidance and effective risk management dictate that appropriate levels of evaluation are undertaken pre-determination. This would allow mitigation through evolving design as part of the proportionate mitigation strategy across the impact zone to be determined pre-construction.

Section 7.7.14 states that '*The scope of geophysical survey will be agreed with the Historic Environment Officers for LCC and will be undertaken within areas of the Site Boundary that are suitable for survey and where land access can be obtained by way of landowner agreement.*'

Geophysical survey is essential as a prospecting technique for informing the trial trenching programme. For those areas where geophysical survey is not undertaken a greater density of evaluation trenching will be needed to determine the archaeological potential. This is essential for ensuring the EIA and the mitigation strategy are adequately informed across the redline boundary.

Regarding section 7.7.14 under Desk-based sources, these should include Portable Antiquities Scheme (PAS) data and map regression should include all available maps to provide a reasonable understanding of the development and time depth of the sites.

Section 7.7.15 states that '*Further archaeological evaluation may be undertaken....These additional surveys (if required) may include'*

- *Monitoring of geotechnical ground investigations to establish the geoarchaeological baseline conditions and to assess the potential for deposits containing palaeoenvironmental data to be present; and*
- *Archaeological trial trench evaluation to confirm the results of the geophysical survey, characterise the nature, extent and preservation level of archaeological remains in order to understand their heritage value, and to inform a suitable mitigation response.*

In response to the first point, we strongly recommend that a qualified geoarchaeologist be included in the geotechnical investigations. In response to the second point, as the document itself states they will establish baseline evidence and an understanding of the surviving archaeology across the redline boundary to inform adequate mitigation.

Geophysical survey and other remote survey techniques require evaluation trenching in order to determine the depth, extent, state of preservation and significance of archaeology and also to provide ground-truthing for so-called 'blank' areas where previous evaluation techniques have not identified archaeology. This is because there are types of archaeology that do not come up in desk-based assessments or geophysical survey such as burials, types of geology which may affect geophysical survey results, and later human activity such as Medieval ridge and furrow ploughing can mask earlier archaeological features. Significant areas of unexpected archaeology have been identified during the trenching phase of every other NSIP across Lincolnshire, for example a Saxon cemetery was found approximately 20cm from the current ground surface.

Regarding the use of the phrases in the scoping document and quoted above such as '*Further archaeological evaluation may be undertaken*' and '*These additional surveys (if required) may include....*' These surveys are required, and should be undertaken when the results can inform the iterative design process. This is in accordance with the National Policy Statement for Renewable Energy Infrastructure (EN-3) which states that '***The results of pre-determination archaeological evaluation inform the design of the scheme and related archaeological planning conditions.***' ([footnote 94](#))

Section 7.8.1 states that '*It is assumed that there will be access to all required land to undertake the walkover survey and any additional surveys that may be required to support the ES. In the event that access is not available a professional judgement and a precautionary principle approach will be adopted, based on available research and data, to assess the archaeological potential of the area.*'

In the event that no trenching can occur before the commencement of groundworks these areas will carry a very high level of risk which will need to be accommodated by incorporating flexibility in the work programme and budget. Any unevaluated areas will need to be subject to stronger archaeological mitigation as the potential hasn't been determined. It is therefore much preferred that sufficient field evaluation is undertaken across the full redline boundary to provide the essential baseline evidence to design a reasonable and appropriate mitigation strategy.

Please be advised that most of Lincolnshire is not suitable for trenching over the wet winter months so it is pragmatic to ensure there is sufficient time during those seasons where evaluation work particularly trenching can be effectively undertaken. Given the long lead-in time for this scheme however we would not anticipate that this would be an issue.

Section 8.8.2 states that '*It is currently assumed that should there be the requirement for the potential mitigation of ecological features and recommended enhancement measures, suitable on-site areas will be made available to deliver the required outcomes.*'

An understanding of the location and depth of significant archaeology across the redline boundary would inform this process, lessening developmental harm on the historic environment and building in the capacity for archaeological mitigation as part of the iterative design process.

Regarding Surface Water Drainage, section 2.3.52 states that '*The detailed operational drainage design will be carried out pre-construction with the objective of ensuring that drainage of the land to the present level is maintained. It will follow either the design of a new drainage system taking into*

account the proposed new infrastructure (access tracks, cable trenches, structure foundations) to be constructed, or, if during the construction of any of the infrastructure, there is any interruption to existing schemes of land drainage, then new sections of drainage will be constructed.' Table 1. Leoda Solar Farm Environmental Mitigation and Commitments Register, ENC-26 Ecology and Nature Conservation makes reference to '*localised SuDS, such as swales and infiltration trenches*' and sustainable drainage systems (SuDS) is defined in this document as '*Surface water drainage systems developed in line with the ideals of sustainable development (e.g. swales, ponds, basins, filtration flow control, etc).*' (p384)

Drainage groundworks typically go below the depth of the archaeological horizon meaning they would damage or destroy any surviving archaeology. Details of the work will therefore need to be provided. Given these works will be carried out pre-construction, sufficient evaluation will need to be undertaken in advance of these works and any agreed archaeological mitigation will need to take place before any groundworks including that required for drainage.

Regarding Biodiversity and Landscaping, section 2.3.54 states there will be '*planting of seed mixes within the solar PV area*' and section 10.6.2 refers to '*new planting across the Site Boundary.*'

Again sufficient detail will need to be provided to allow for an understanding of the potential impacts, for example soil inversion for wildflower planting and the depth and extent of ecological mitigation measures such as scrapes, ponds and wetland creation. This is necessary so that the impacts upon any surviving archaeology may be understood and so that proportionate mitigation of the impacts can be agreed with respect to areas of archaeological sensitivity.

Historic England Advice Note 17: Planning and Archaeology states that '***Appropriate evaluation can support the smooth and speedy progression of the development and help to manage the developer's risk early in the planning process***' (section 131). It also states that '***Data gathered can also help to inform a costed mitigation strategy, the benefits of which include a reduction in the chances of unexpected risks and associated costs, and potentially the scope to allocate the cost of archaeology appropriately into financial forecasts***' (section 132).

We would also expect a scheme of this size to include a reasonable degree of community engagement and public outreach.

In summary, the EIA will require the full suite of comprehensive desk-based research, non-intrusive surveys, and intrusive field evaluation by trenching for the full extent of proposed impact. The results should be used to minimise the impact on the historic environment through informing the project design and to provide the basis for a fit for purpose site-specific mitigation strategy to adequately deal with the impacts of this development upon currently surviving archaeology.

The provision of sufficient baseline information to identify and assess the impact on known and potential heritage assets is essential. Overarching National Policy Statement for Energy (EN-1) outlines requirements for understanding the significance of heritage assets that will be affected, including 5.9.12: '***The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.***' ([Section 5.9.9-5.9.15](#))

Officer: [REDACTED]
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14/02/2025

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Planning Inspectorate Reference Number: EN0110016

Planning Application Reference: PA/SCO/2025/4

Application by Leoda Solar Farm Limited (the applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development)

Scoping consultation and notification of the applicant's contact details and duty to make available information to the applicant if requested.

Location: Land to the west of Leadenham, Welbourn and Wellingore, the east of Brant Broughton and to the north of the A17 road within North Kesteven District Council.

Officer: [REDACTED]

Thank you for your email dated 3rd February 2025 giving North Lincolnshire Council (NLC) the opportunity to comment on the application by Leoda Solar Farm Limited for an Order granting Development Consent for the Leoda Solar Farm.

I can confirm that after consultation with our internal technical consultees that North Lincolnshire Council has no comments or objections to raise in respect of this project with the proposed development not likely to result in any significant impact upon North Lincolnshire.

Kind Regards



Senior Planning Officer
North Lincolnshire Council

From: [REDACTED]
To: [Leoda Solar Farm](#)
Cc: [ENC PLANNING](#)
Subject: Application by Leoda Solar Farm Limited (the applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development) - Scoping Consultation
Date: 26 February 2025 14:22:11

You don't often get email from [REDACTED]@northnorthants.gov.uk. [Learn why this is important](#)

Good afternoon,

Thank you for your letter dated 3rd February 2025, regarding a scoping consultation for an application by Leoda Solar Farm.

I can confirm that having considered the proposal and the distance of the works from North Northamptonshire, the Council does not wish to make any comment in respect of the statutory consultation.

Kind regards,

[REDACTED] | Principal Development Management Officer

Thrapston Office

North Northamptonshire Council
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Disclaimer

From: [Before You Dig](#)
To: [Leoda Solar Farm](#)
Subject: RE: EXT:Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 04 February 2025 11:47:42
Attachments: [~WRD0000.jpg](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)

You don't often get email from beforeyoudig@northerngas.co.uk. [Learn why this is important](#)

Good Morning

Northern Gas Networks do not cover this area.

Please forward your enquiry to plantprotection@cadentgas.com

You can use the link below to check which gas network operator covers each area before submission to ensure you have the correct network;

<https://www.energynetworks.org/operating-the-networks/whos-my-network-operator>

Kind regards,

Administration Assistant

Before You Dig

Northern Gas Networks

1st Floor, 1 Emperor Way

Doxford Park

Sunderland

SR3 3XR

My working days are Tuesday, Wednesday, Thursday & Friday 07:00am – 14:00pm

Before You Dig: 

www.northerngasnetworks.co.uk

facebook.com/northerngasnetworks

twitter.com/ngngas

Alternative contact:

beforeyoudig@northerngas.co.uk



Get involved! Have your say in the future of your gas network and win great prizes, by taking part in our BIG customer survey at together.northerngasnetworks.co.uk Keep posted to take part in a range of activities from workshops to roadshows. Together, we are the network.

Northern Gas Networks Limited (05167070) | Northern Gas Networks Operations Limited (03528783) | Northern Gas Networks Holdings Limited (05213525) | Northern Gas Networks Pensions Trustee Limited (05424249) | Northern Gas Networks Finance Plc (05575923). **Registered address:** 1100 Century Way, Thorpe Park Business Park, Colton, Leeds LS15 8TU. Northern Gas Networks Pension Funding Limited Partnership (SL032251). **Registered address:** 1st Floor Citypoint, 65 Haymarket Terrace, Edinburgh, Scotland, EH12 5HD.

For information on how we use your details please

From: Leoda Solar Farm

Sent: 03 February 2025 14:44

To: Leoda Solar Farm

This matter is being dealt with by:

Ref: [REDACTED]

T [REDACTED]

E [REDACTED]@nottscgov.uk

W nottinghamshire.gov.uk



**Nottinghamshire
County Council**

Sent via email to: LeodaSolarFarm@planninginspectorate.gov.uk

3rd March 2025

Dear Sir/Madam,

Planning Act 2008 (as amended) and The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (The EIA Regulations) – Regulations 10 and 11 Application by Leoda Solar Farm Limited (the applicant) for an Order granting Development Consent for the Leoda Solar Farm (the proposed development) – ES Scoping

Thank you for your email dated 3rd February 2025 requesting strategic planning observations on the above. The County Council is a host authority under Section 42-43 of the Planning Act 2008 and has several statutory responsibilities and areas of expertise that are of relevance in the assessment of nationally strategic planning applications. These include Minerals and Waste Planning and Archaeology and Cultural Heritage.

Flood Risk Management

NCC do not expect there to be any major flood risk issues and defer to the local LLFA to consider this as part of the consultation

Archaeology

There are no direct impacts for archaeology in Nottinghamshire for this proposal.

Indirect impacts to the setting of designated assets are also likely to be outside of the NCC boundary and the applicants have indicated a 5km search area which is considered acceptable.

Waste

In relation to waste, the County Council note that Chapter 15 of the EIA Main Scoping report outlines the scope of assessment for the proposed scheme in relation to materials and waste. Paragraph 15.2.5 notes that the study area for non-hazardous and inert waste management will be the East Midlands Region, with Nottinghamshire one of the sub regions. The current landfill capacity shown in Table 15- 4 therefore includes Nottinghamshire. Due to the limited information and uncertainty about landfill void capacity and so the nature of mitigations, the promoter has indicated this has been scoped into the assessment.

Nottinghamshire County Council would agree with such an approach and would recommend that the promoter looks at the [Waste Needs Assessment](#) (May 2023) that was published alongside the [emerging Nottinghamshire and Nottingham Waste Local Plan](#) to understand the current landfill position for the Nottinghamshire.

The County Council would also encourage the promoter to look at the cumulative impact of the proposal alongside the many other proposed and permitted solar farm developments in Nottinghamshire and Lincolnshire. With similar timescales and an industry for recycling solar panels

not yet established, the cumulative impact of this proposal with other developments on waste capacity, in Nottinghamshire and Lincolnshire particularly, should be considered.

Should you require any further assistance in relation to any of these matters please do not hesitate to contact me.

Yours faithfully

[REDACTED]
Principal Planning Officer
Nottinghamshire County Council

This document is unsigned as it is electronically forwarded. If you require a signed copy, then please contact the sender.

Telephone: [REDACTED] (9am - 1pm Mon, Wed, Fri)
Email: planningcontrol@peterborough.gov.uk
Case Officer: [REDACTED]
Our Ref: 25/01037/CONSUL
Your Ref: EN0110016

PETERBOROUGH



Planning Services

Sand Martin House
Bittern Way
Fletton Quays
Peterborough
PE2 8TY

[REDACTED]
Planning Inspectorate Secretary of State
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol, BS1 6PN

Peterborough Direct: [REDACTED]

13 February 2025

Dear Sir/Madam

Planning enquiry

Proposal: EIA Scoping Consultation and Notification

Site address: Leoda Solar Farm

Further to your enquiry received on 3 February 2025, in respect of the above, the Local Planning Authority makes the following comments:

The proposal site is remote from Peterborough and accordingly, we have no comments.

I trust that the above advice is of use however should you have any further queries, please do not hesitate to contact me on the details shown at the top of this letter.

Yours faithfully

[REDACTED]

Principal Minerals and Waste Officer

From: [Asset.Protection](#)
To: [Leoda Solar Farm](#)
Subject: FW: Leoda Solar Farm - Notification of Environmental Impact Assessment scoping report consultation
Date: 05 February 2025 13:29:01
Attachments: [image003.jpg](#)
[Leoda Solar Farm - Letter to stat cons Scoping & Reg 11 Notification.pdf](#)

You don't often get email from asset.protection@severntrent.co.uk. [Learn why this is important](#)

ST Classification: UNMARKED

Good afternoon

I write in reference to the attached Notification to confirm we have no comments at this stage.

Kind regards

[REDACTED]
Asset Protection

Asset Strategy & Planning

Chief Engineer

image001



Severn Trent Plc (registered number 2366619) and Severn Trent Water Limited (registered number 2366686) (together the "Companies") are both limited companies registered in England & Wales with their registered office at Severn Trent Centre, 2 St John's Street, Coventry, CV1 2LZ. This email (which includes any files attached to it) is not contractually binding on its own, is intended solely for the named recipient and may contain confidential, commercially sensitive or may be covered by legal professional privilege. If you are not the intended recipient, you must not disclose or use the information contained in it. If you have received this message in error, please notify the sender immediately or call us on 03457 500 500. If you are not the intended recipient you must not use, disclose, distribute, reproduce, retransmit, retain or rely on any information contained in this email. Please note the Companies reserve the right to monitor email communications in accordance with applicable law and regulations. To the extent permitted by law, neither the Companies or any of their subsidiaries, nor any employee, director or officer thereof, accepts any liability whatsoever in relation to this email including liability arising from any external breach of security or confidentiality or for virus infection or for statements made by the sender as these are not necessarily made on behalf of the Companies. Reduce waste! Please consider the environment before printing this email.

Planning Inspectorate
Environmental Services
Operations Group 3
Temple Quay House
2 The Square
Bristol, BS1 6PN

Your Ref: EN0110016
Our Ref: H04-0111-25
Contact: [REDACTED]
E-mail: [REDACTED]@e-lindsey.gov.uk
Date: 25 February 2025

Dear Sir or Madam

Re: EN0110016 – Leoda Solar Farm – EIA Scoping Regulation 11 Notification and Consultation.

With reference to the above Project and EIA Scoping Opinion Consultation letter dated the 3rd February 2025.

The site for the solar array and the cable corridor route to the connecting substation to the east of Navenby for the Leoda Solar Farm does not fall within the administrative boundary of South Holland District Council.

The Project is situated within North Kesteven Council's area which is approximately 34km from South Holland District Council's boundary. Such a distance is significantly beyond the Applicants Zone of Influence and outside of the study areas for consideration of non-statutory and statutory designations within.

We do not therefore consider that there will be any discernible impact upon South Holland District Council's area and therefore wish to confirm that we do not have any comments to make on the information to be provided within the Environmental Statement for the above Project.

This advice is therefore based upon the information available currently. Please note that the advice is given without prejudice to any future decision made by the Local Planning Authority upon the receipt of further information.

If you have any queries, please do not hesitate to contact [REDACTED]. Many Thanks.

Yours faithfully,

[REDACTED]

[REDACTED]
Nationally Significant Infrastructure Projects Manager

South Kesteven District Council

Development Management

Council Offices, The Picture House,
St Catherine's Road, Grantham, NG31 6TT

Tel: [REDACTED]

E-mail: planning@southkesteven.gov.uk

Web: www.southkesteven.gov.uk



SOUTH
KESTEVEN
DISTRICT
COUNCIL

<p>[REDACTED] The Planning Inspectorate Temple Quay House 2 The Square Bristol BS1 6PN</p>	<p>Case Officer E-Mail Tel Ext: Date: 20th February 2025</p> <p>[REDACTED] [REDACTED]@southkesteven.gov.uk</p>
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Dear Sir/Madam

Application No.	S25/0251
Proposal:	EIA Scoping Notification and Consultation.
Location:	Leoda Solar Farm
Application Type:	Adjoining Authority Consultation
Decision:	Comments to Make

The above proposal has been considered by this Authority and on the 20th February 2025 it was resolved that this Council wishes to make the following comments:-

1. South Kesteven District Council is satisfied with the scope of topics set-out in the Environmental Impact Assessment Scoping Report.

Yours faithfully

[REDACTED]
Assistant Director Of Planning



Guildhall
Marshall's Yard
Gainsborough
Lincolnshire
DN21 2NA

Telephone [REDACTED]
Web www.west-lindsey.gov.uk

PLANNING INSPECTORATE
TEMPLE QUAY HOUSE
2 THE SQUARE
BRISTOL
BS1 6PN

Planning.customer.care@west-lindsey.gov.uk
Date: 27/02/2025

Dear Sir/Madam

APPLICATION REFERENCE NO: WL/2025/00125

PROPOSAL: PINS consultation on behalf of the Secretary of State for its opinion (a scoping Opinion) as to the information to be provided in an Environmental Statement - EN0110016

LOCATION: Leoda Solar Farm

Thank you for identifying West Lindsey District Council as a consultation body and advising that the Secretary of State will be preparing a Scoping Opinion on the information to be provided in an Environmental Statement. As the case officer, I have read through the EIA Scoping Report dated January 2025. Section 2 describes the proposed development including the different phases from construction through to decommissioning. The Scoping Report is considered to be comprehensive.

The proposed site at its closest point (grid connection corridor) is estimated to be approximately 13-14km from the southern-most part of the West Lindsey District beyond the River Witham and the settlement of Greetwell. The indicative area for solar panels is estimated to be approximately 16km at its closest point to the boundary of West Lindsey. The site is therefore a considerable distance away from the district of West Lindsey.

The statutory development plan for the purposes of S38 (6) of the Planning and Compulsory Purchase Act 2004 is the Central Lincolnshire Local Plan 2023 which was formally adopted on 13th April 2023.

The Environmental Statement (ES) should consider National Planning Policy and Guidance as follows;

- National Planning Policy Framework (NPPF) – most recent December 2024;
- National Planning Practice Guidance (NPPG) (to include):

- Climate Change
- Cultural Heritage/Historic Environment/Archaeology
- Ecology and Biodiversity
- Noise and Vibration
- Agriculture, Soils and the Natural Environment
- Travel and Access (including Travel Plans, Transport Assessments and Statements in Decision Taking)
- Hydrology, Flood Risk, Water Quality and Wastewater
- Landscape and Visual Impacts
- Construction, Operation and Decommissioning
- Environmental Impact Assessment
- Glint and Glare/Light Pollution
- Socio-Economics, Human Health and Community Impacts

- National Design Guide 2019
- National Design Code 2021

Landscape and Visual Amenity

As set out in the Scoping Report, the Landscape and Visual Impact Assessment (LVIA) should follow the guidance of the Landscape Institute Guidelines for Landscape and Visual Impact Assessment 3rd Edition (2013), as proposed, with reference to other environmental topics, including Ecology and Nature Conservation, Cultural Heritage, and Glint and Glare.

Given the height of the proposed development and the distance from the most southerly point of West Lindsey, it would not be expected to be visible from any parts of the West Lindsey District. Therefore, it is not considered likely that any viewpoints from West Lindsey would be necessary and no residential properties in West Lindsey are expected to be affected.

Cumulative Impacts

West Lindsey District Council, which is part of the Central Lincolnshire Authorities along with North Kesteven District Council and City of Lincoln Council, currently has three consented solar NSIP projects within our district. We also currently have one at examination and one at the pre-application stage (due to be submitted between January and March 2025) which lies partially within our district. They are as follows:

Consented

Gate Burton Energy Park – 500MW anticipated energy generation capacity over approximately 684 hectares. This site would be located approximately four kilometres south of Gainsborough, near the communities of Gate Burton, Knaith Park and Willingham-by-Stow. The electricity generated by the energy park is expected to be

exported into the existing national electricity transmission system at National Grid's 400kV Cottam substation, in the district of Bassetlaw.

The Secretary of State granted a DCO for the development on 12th July 2024 with the DCO setting out 19 requirements which the developer must fulfil.

Cottam Solar Project – 600MW anticipated energy generation capacity over approximately 1,270 hectares. Cottam 1 (894Ha) would be located on land between Sturton by Stow and Ingham. Cottam 2 (132Ha) on land to the north-east of Corringham; and Cottam 3 (244Ha) to the east of Blyton and Pilham. The electricity generated by the energy park is expected to be exported into the existing national electricity transmission system at National Grid's 400kV Cottam substation, in the district of Bassetlaw.

The Secretary of State granted a DCO for the development on 5th September 2024 with the DCO setting out 22 requirements which the developer must fulfil.

West Burton Solar Project – Up to 480MW energy generation capacity over 788 hectares. West Burton 1 (90Ha), 2 (328ha) and 3 (370Ha) are clustered within a circa 8.5km stretch of countryside located east of the River Trent, south of the A1500 and north of Saxilby. West Burton 4 (247Ha) in Bassetlaw District has now been removed from the project. Each of the sites will be connected by underground cables. This will allow for energy generated to be transferred to the grid connection point at West Burton Power Station, in the district of Bassetlaw.

The Secretary of State granted a DCO for the development on 24th January 2025 with the Stow Park Alteration with the DCO setting out 21 requirements which the developer must fulfil.

At Examination

Tillbridge Solar Project – Up to 500MW energy generation capacity over approximately 1,400 hectares. The development would be located approximately 5km to the east of Gainsborough between the villages of Glentworth, Hemswell and Springthorpe, on the land to the south of Harpswell Lane (A631), to the west of Middle Street (B1398) and largely to the north of Kexby Road and to the east of Springthorpe. The electricity generated would connect to National Grid's Cottam substation in Bassetlaw District.

The six month examination formally commenced on Tuesday 15 October 2024 with the Preliminary Meeting. The Examining authority is under a duty to complete the examination by Tuesday 15 April 2025.

The secretary of State will be due to have made a decision within six months of the examination closing, for example by 15 October 2025.

Pre-Application – Due to be submitted early 2025 (February – March)

One Earth Solar Project - The One Earth Solar Farm proposes a new solar photovoltaic farm and associated battery energy storage that would import and export up to 740MW of electricity (the developer expects that this would be able to supply up to 200,000 UK homes). Grid connection would be made to the high Marnham sub-station in Bassetlaw District.

The site is proposed on land to the south of Newton on Trent, and would fall within the Districts of West Lindsey, Bassetlaw, and Newark & Sherwood. It would lie within both Lincolnshire and Nottinghamshire counties.

The developer has indicated that they intend to submit their application for a Development Consent Order to the Government's Planning Inspectorate in early 2025 (between January and March). If this is met, the public examination will be likely to take place in the later half of 2025.

Whilst the structure of the Environmental Statement appears to be generally acceptable it is imperative that any Environmental Impact Assessment clearly considers within its structure the cumulative effect of the Leoda Solar Farm with the aforementioned solar farm projects and any other solar parks in the nearby area, such as Heckington Fen, Springwell Solar Farm, Beacon Fen Solar Park and Fosse Green Energy, also within the North Kesteven District. There are questions as to how all these developments taken together will affect Central Lincolnshire's character, as traditional rural Lincolnshire Countryside.

Yours faithfully,

[REDACTED]
Senior Development Management Officer
On behalf of West Lindsey District Council

Email: [REDACTED]@west-lindsey.gov.uk

If you require this letter in another format e.g. large print, please contact Customer Services on 01427 676676, by email customer.services@west-lindsey.gov.uk or by asking any of the Customer Services staff.

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